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U.S.--CHANUTE AIR  
FORCE BASE, CHANUTE,  
ILLINOIS

32 YEARS OF  
TECHNICAL TRAINING  
(1952)



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32



*Years of*  
**technical  
training**

*Chanute*

**air force base**





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*Ensign*



The over-all technical training program conducted at Chanute Air Force Base covers a wide variety of subjects and skills. It is intended that this pamphlet furnish material (both written and pictorial) to portray the scope, organization and method of operation of training activities of this Base in the accomplishment of the assigned mission.

*B. E. Gates*

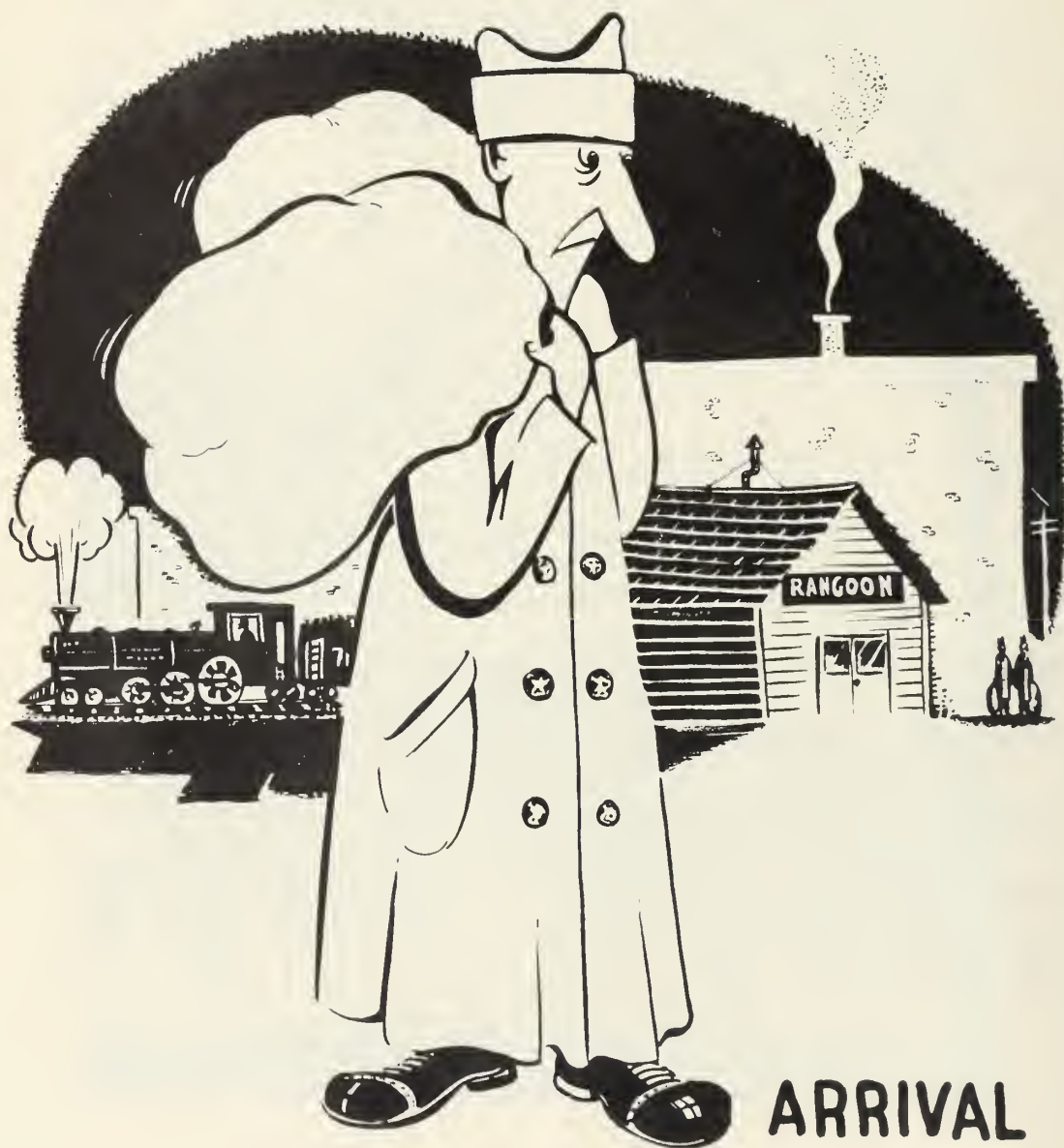
B. E. GATES  
Major General, USAF  
Commanding





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## MISSION AND ORGANIZATION

The primary mission of Chanute Air Force Base is to provide formal technical training for both officers and airmen of the United States Air Force in the fields of weather, specialized aircraft mechanics, aircraft maintenance and certain trade or craftsman courses such as fabric and leather worker, welder, machinist, etc. In addition to Air Force personnel, officers and men from other branches of our Armed Services, as well as foreign students, are selected to attend courses in the Technical School.

In order to carry out this mission under the Wing-Base pattern of organization, direct supervision over the operation of the Technical School is vested in the Primary Mission Group or the 3345th Technical Training Group.

For administrative efficiency in the operation of the school and the conduct of the various courses, the school is organized into six (6) departments, each one of which will be discussed later in this booklet followed by a brief account of the courses conducted.

For administrative control over personnel, including students, staff and instructors, the Group is organized into a Headquarters Squadron Section, four (4) Instructor Squadrons and sixteen (16) to twenty-one (21) Student Squadrons, depending on the student load.

Insofar as practicable, students are assigned to squadrons homogeneous to the courses being pursued. The Squadron Operations Section is responsible for a counseling program, which provides maximum guidance and counseling to enable the students to successfully complete their courses.

In the last analysis, the true test of whether or not the Technical School is accomplishing its mission is determined by the calibre of its product - our graduates - and how well they perform in the field.

Chanute graduates of the past have established high standards of technical proficiency and good maintenance. For the future there is great pride and confidence that these traditions of past performance will be maintained without fail.



WELCOME

## CHANUTE AIR FORCE BASE IN RETROSPECT

Chanute Air Force Base, home of the oldest and one of the leading Technical Schools in the Air Force, was established in 1917 to train pilots for World War I. July 18, 1917 marks the date when a dozen Curtis "Jennies" with an instructor and student in each took off as the first class of formal instruction at this station.

In 1921 the "Army Enlisted Mechanic School" was established at Chanute when mechanic and technician courses were transferred from Kelly Field, Texas. During the following year (1922), the Photography School at Langley Field, Virginia, and the Air Service Communications School, Ft. Sill, Oklahoma, were added to the Technical Training Program at this Base. Thus, we see that the original school embraced the fields of mechanics, photography, communications and armament.

In 1924 a clerical school was added to the curricula, but this course along with photographic and armament training were transferred to Lowry Field, Colorado, in 1938.

1938 marked the beginning of the expansion program when an appropriation of eight and one-half million dollars (\$8,500,000.00) was made for the construction of modern facilities. Buildings constructed as a result of this appropriation include all the centrally located brick buildings, a test blocks building, and the three large hangars. The following year another appropriation was made for the construction of an additional hangar which is now designated as hangar #3 and is somewhat smaller than the original three.

The peak period for the training of personnel in technical skills was reached during the war years (1940 - 1945) when over 200,000 men were graduated from the various courses.

Since the termination of the war and up to date, the school has passed through the post war era with a student load averaging around 3000 students enrolled in over forty different courses, reaching an all time high for peace time with over 8000 students in school under the expanded program of 1952.

Since the origin of technical training at this Base in 1921, many changes have taken place both in the scope of courses offered and concept of training to meet ever changing demands and requirements of the Air Force. This school has every reason to be proud of the contribution it has made and the vital part it has played in the development of the United States Air Force.



# ORIENTATION



# TECHNICAL SCHOOL STAFF

3345TH TECHNICAL TRAINING GROUP

## GROUP COMMANDER



COL R B CHARRON

## PERS. ADJUTANT



MAJ R W FREY

## T.A.D.



LT COL L D JOHNSTON

## OPERATIONS



LT COL E L COCKRUM

## MATERIEL



CAPT L B TAPP

## DEPT. OF AIRCRAFT SPECIALIST TRAINING



MAJ E H HOAGLAND

## DEPT. OF POWER PLANT TRAINING



MAJ D O SUNDERLAND

## DEPT. OF CRAFTS & TRADES TRAINING



LT COL R W OTTO

## DEPT. OF ADVANCED AIRCRAFT MAINT. TRAINING



LT COL H R LOUGHRAN

## DEPT. OF INSTRUCTOR TRAINING



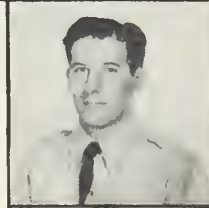
MAJ P L DRISCOLL

## GROUP EXECUTIVE OFFICER



MAJ G O ELLIOTT

## DEPT. OF WEATHER TRAINING



LT COL A R CRISI



ENTRY INTO SCHOOL

## CHANUTE AFB TECHNICAL COURSES

A total of 39 formal courses are offered at this Base. These courses are grouped, insofar as possible, into their respective occupational areas and each group assigned to one of 6 major school departments for administrative purposes. These school departments are listed below along with the courses given within each. It may be noted that throughout the written and pictorial descriptions of the individual courses of instruction, no attempt has been made to describe each of the very similar courses; instead, one general description is given to cover each of such groups.

- I. Department of Aircraft Specialist Training.
  - a. Aircraft Instrument Mechanic Courses.
  - b. Aircraft Electrician Courses.
  - c. Aircraft Propeller Mechanic Course.
  - d. Aircraft Hydraulic Mechanic Course.
  - e. Instrument Trainer Repairman Courses.
- II. Department of Power Plant Training.
  - a. Aircraft Reciprocating Engine Mechanic Courses.
  - b. Aircraft Jet Engine Mechanic Courses.
  - c. Rocket Propulsion Courses.
- III. Department of Crafts and Trades Training.
  - a. Machinist.
  - b. Welder.
  - c. Metals Technician.
  - d. Parachute Rigger.
  - e. Fabric and Leather Worker.
- IV. Department of Advanced Aircraft Maintenance Training.
  - a. Aircraft Maintenance Officer Courses.
  - b. Flight Engineer Courses.
  - c. Mechanical Accessories and Equipment Repairman.
  - d. Maintenance Administration.
- V. Department of Weather Training.
  - a. High Altitude Forecaster.
  - b. Basic Weather Service (Observer Channel).
  - c. Intermediate Meteorological.
  - d. Climatological.
  - e. Advanced Meteorological.
  - f. Basic Weather Service (Equipment Channel)
  - g. Intermediate Weather Equipment.
  - h. Advanced Weather Equipment.
- VI. Department of Instructor Training.
  - a. Technical Instructor.







# *aircraft specialist training*

Instruction in the Department of Aircraft Specialist Training is of three (3) types. One type includes courses training toward the Senior Mechanic level in the Aircraft and Engine Maintenance and Aircraft Accessory Maintenance career fields. The second type includes special training courses for high level mechanics or technicians on specific new equipment. The third type trains instrument trainer mechanics for maintenance of synthetic flight trainers.

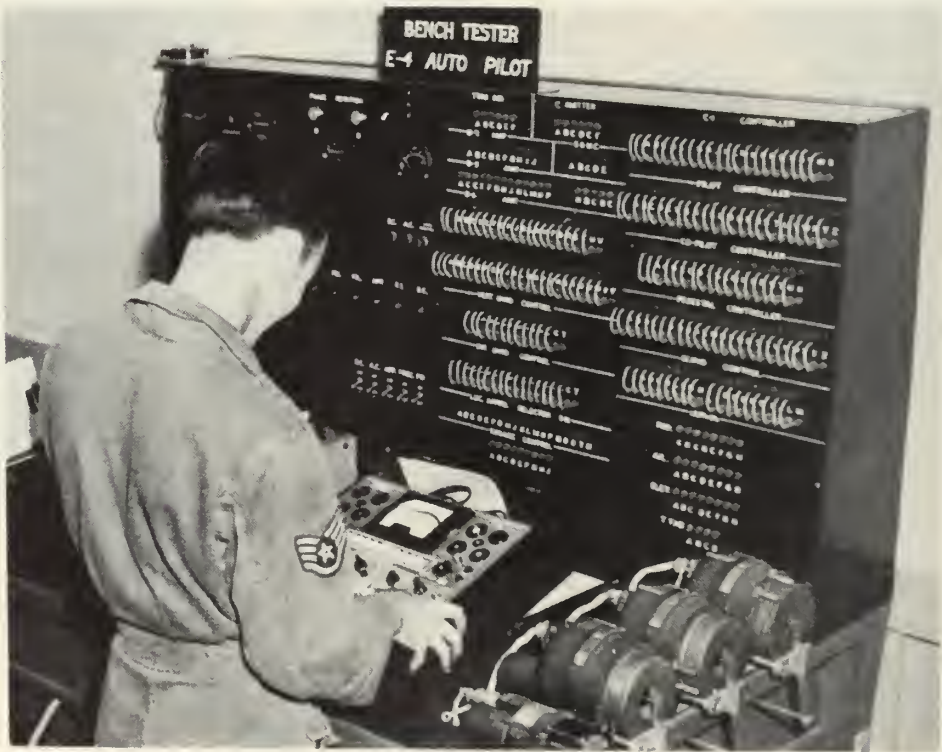


## AIRCRAFT INSTRUMENT MECHANIC COURSE NO. 43156

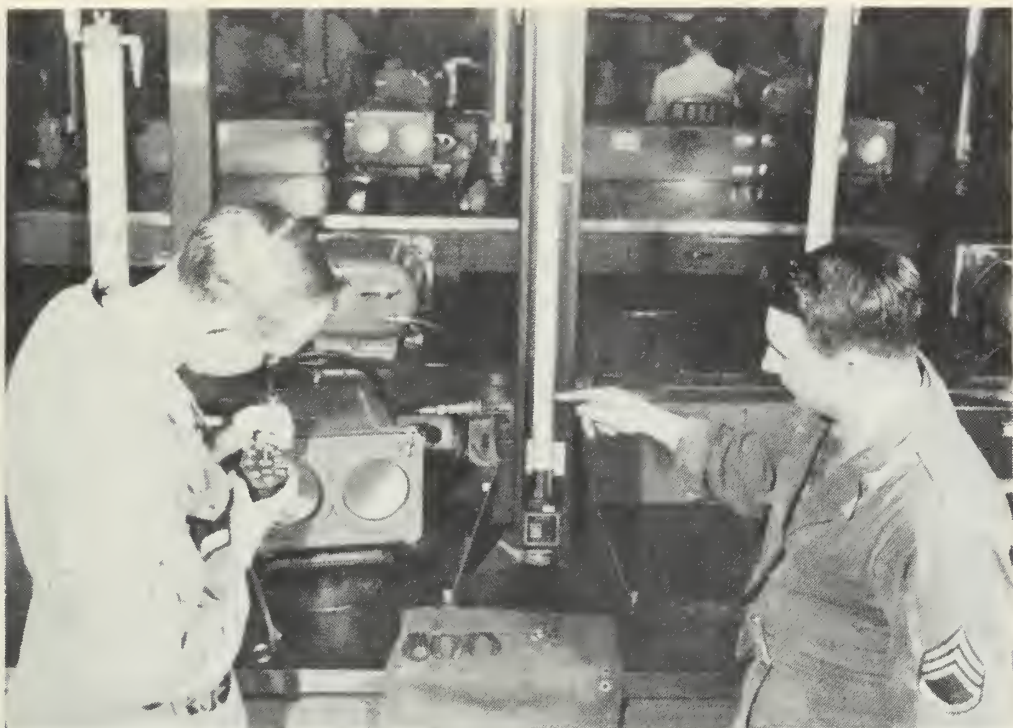
This course is designed to give advanced training in the maintenance and repair of airplane instruments and related equipment to helpers or apprentice mechanics.

Graduates of the course are trained to inspect, test, calibrate, adjust, and make minor repairs of aircraft instruments.

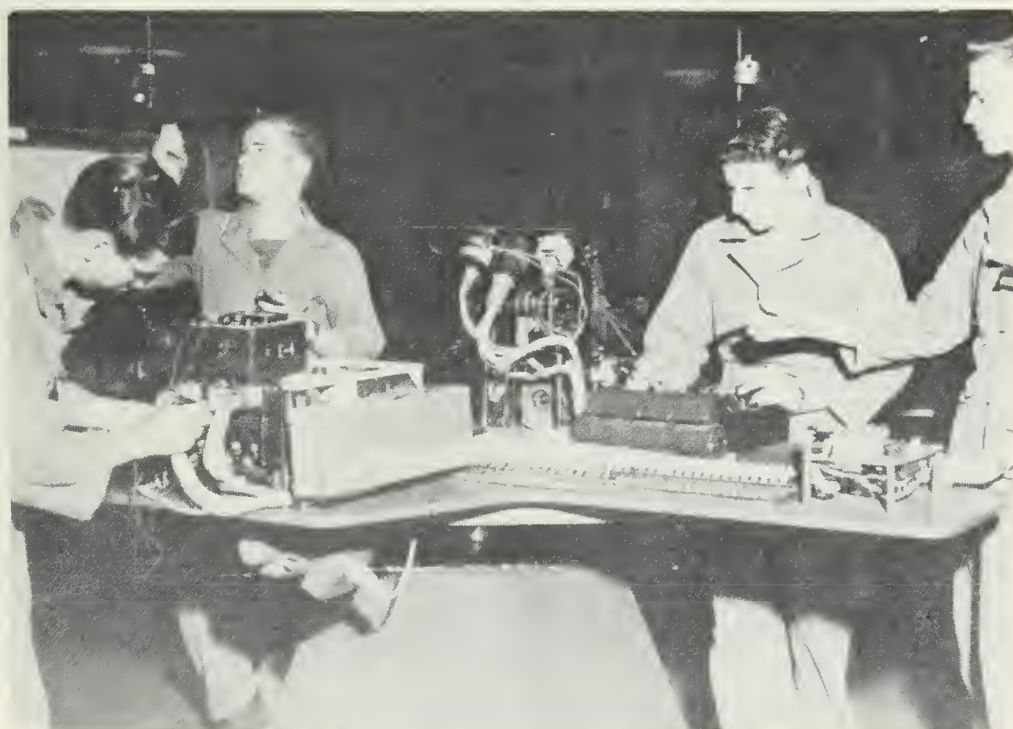
Special training instrument courses are given on the types F-5, E-4, E-6, and A-12D automatic pilots for advanced students.



Making Tests on the E-4 Autopilot Bench Tester



Instructor Supervising a Student Bench Testing  
an Airspeed Indicator



Students Trouble Shooting an E-4 Autopilot System  
Under Instructor Supervision



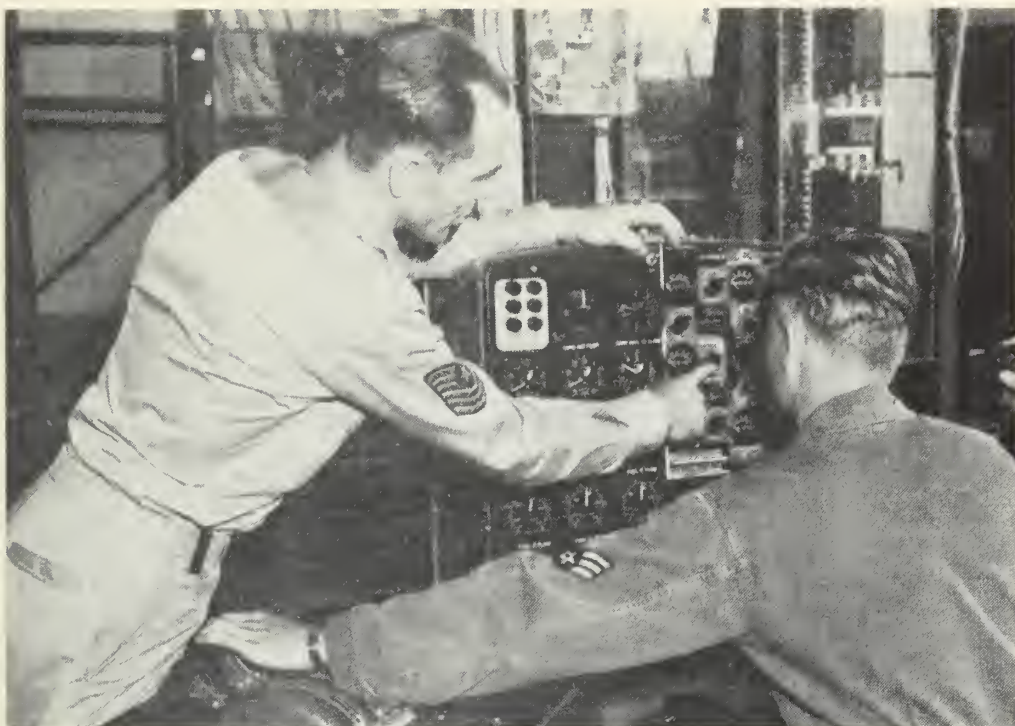
## AIRCRAFT ELECTRICIAN, COURSE NOS. 43154B AND 43154A

Course No. 43154B is designed to give advanced training in the maintenance and repair of aircraft electrical systems other than communications equipment to helpers and apprentice mechanics. Graduates of the course are trained to inspect, test, adjust, make minor repairs of electrical equipment, and trouble shoot electrical circuits with the aid of blueprints.

Course No. 43154A is designed to give training in alternating current systems to selected aircraft electricians. Training involves the installation, adjustment, inspection and maintenance of alternating current electrical units and systems.



Trouble Shooting the Electronic Mixture  
Control System



Checking an Alternator on the B-36 Flight  
Engineer Panel



Locating Troubles in the F-86 Electrical Power System



## AIRCRAFT PROPELLER MECHANIC, COURSE NO. 42350

This course is designed to give advanced training in field and organizational maintenance and repair of airplane propellers and propeller control systems to helpers and apprentice mechanics.

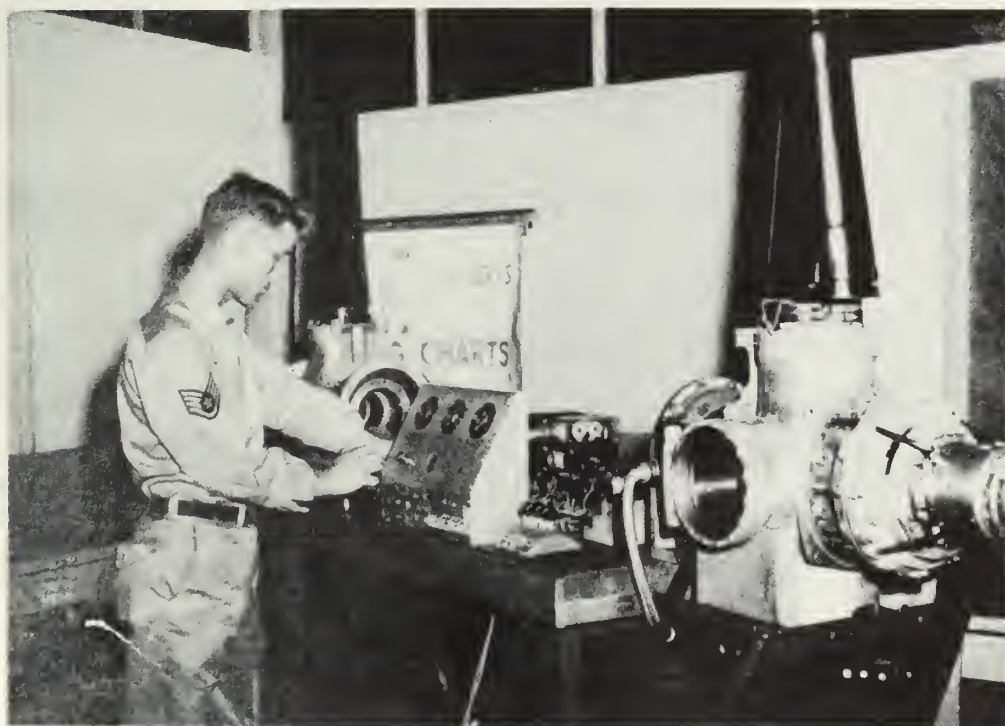
Graduates are trained to remove, install, balance, inspect, trouble shoot, service, and replace worn or defective parts of electrically and/or hydraulically operated propellers, governors, synchronizers, and de-icing or anti-icing systems.



Making a Maximum RPM Check on a Governor  
Test Machine



Removing a Governor from an Aeroprop Regulator



Operating a B-50 Propeller Control Synchronizer

## AIRCRAFT HYDRAULIC MECHANIC, COURSE NO. 42550

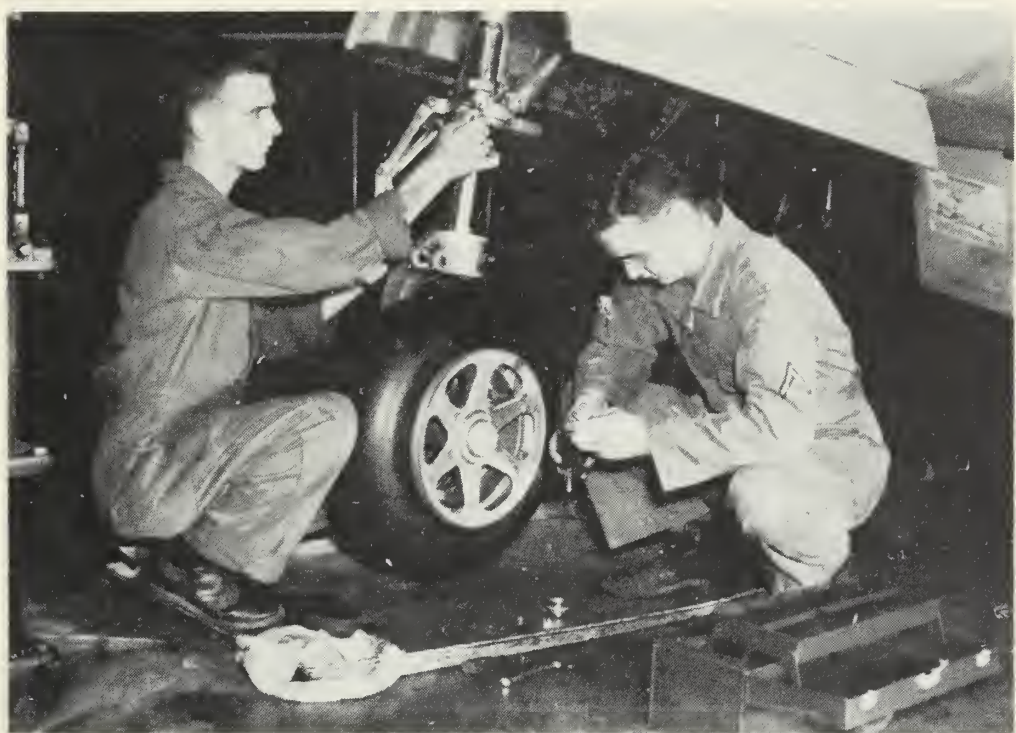
This course is designed to give advanced training in the maintenance and repair of airplane hydraulic units and systems to helpers and apprentice mechanics.

Graduates of this course are trained to repair, service, inspect, trouble shoot and adjust hydraulic units and systems used to actuate such aircraft equipment as landing gear, wheel brakes, bomb bay doors, wing flaps, and boost systems.

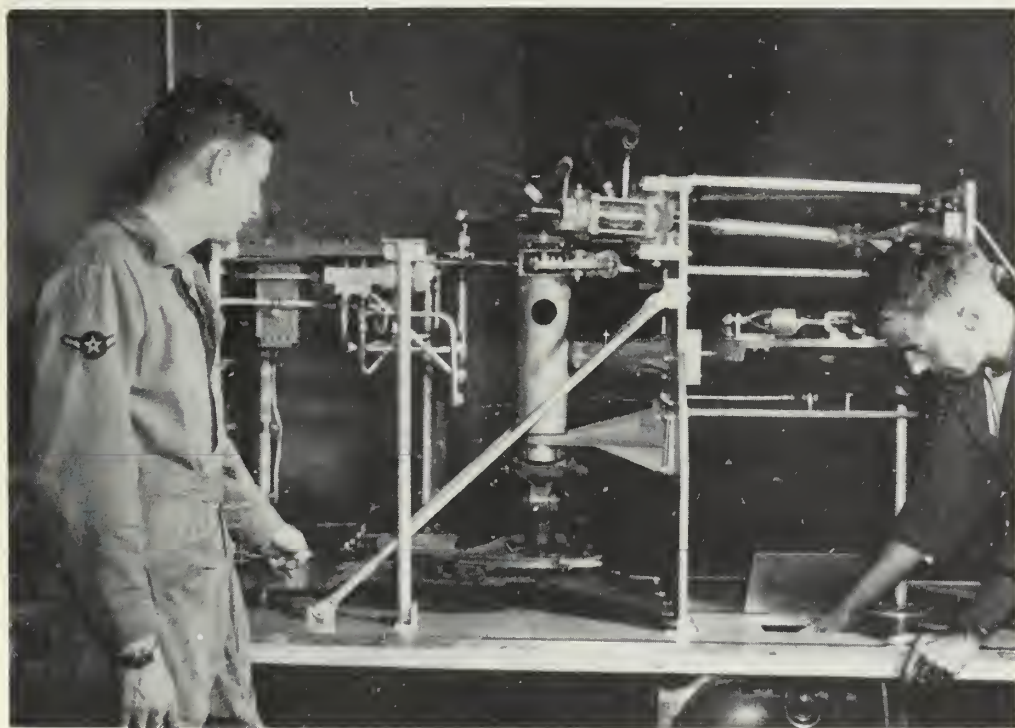


Operating a Hydraulic Unit Tester





Disassembly of Shimmy Damper, F-80 Airplane



Inspecting B-50 Rudder Boost

INSTRUMENT TRAINER REPAIRMAN, SPECIALIZED Z-1  
COURSE NO. 34150

In this course, experienced instrument trainer repairmen are taught to maintain, troubleshoot and repair electronic type flight trainers.

Special training is also given on maintenance of the C-11A trainer.



Checking Radio Facilities of a Jet Type Synthetic  
Flight Trainer





Explaining the Operation of Landing Gear Simulation



Checking Power Supply Fused Circuit

## INSTRUMENT TRAINER REPAIRMAN COURSE NO. 34130

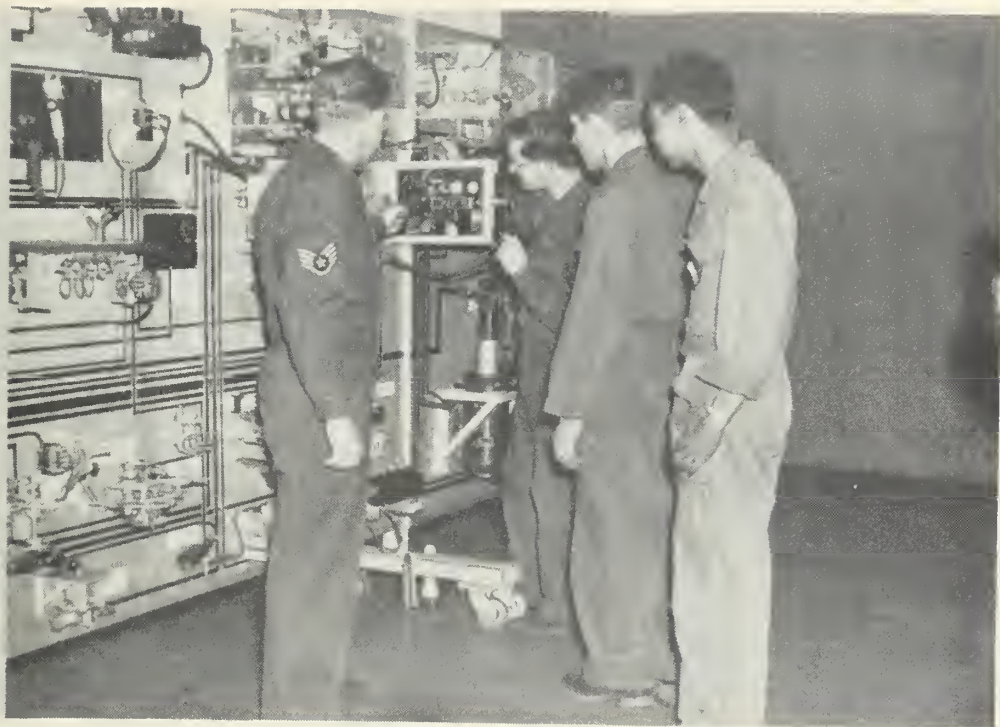
In this course basic airmen are trained in the installation, maintenance, and adjustment of instrument flying and landing trainers.

Graduates are trained to clean, lubricate, calibrate, adjust and test equipment to assure proper functioning, and to locate and correct malfunctioning by repairing or replacing defective parts.



Electrical Circuit Trouble Shooting on a  
Flying and Landing Trainer

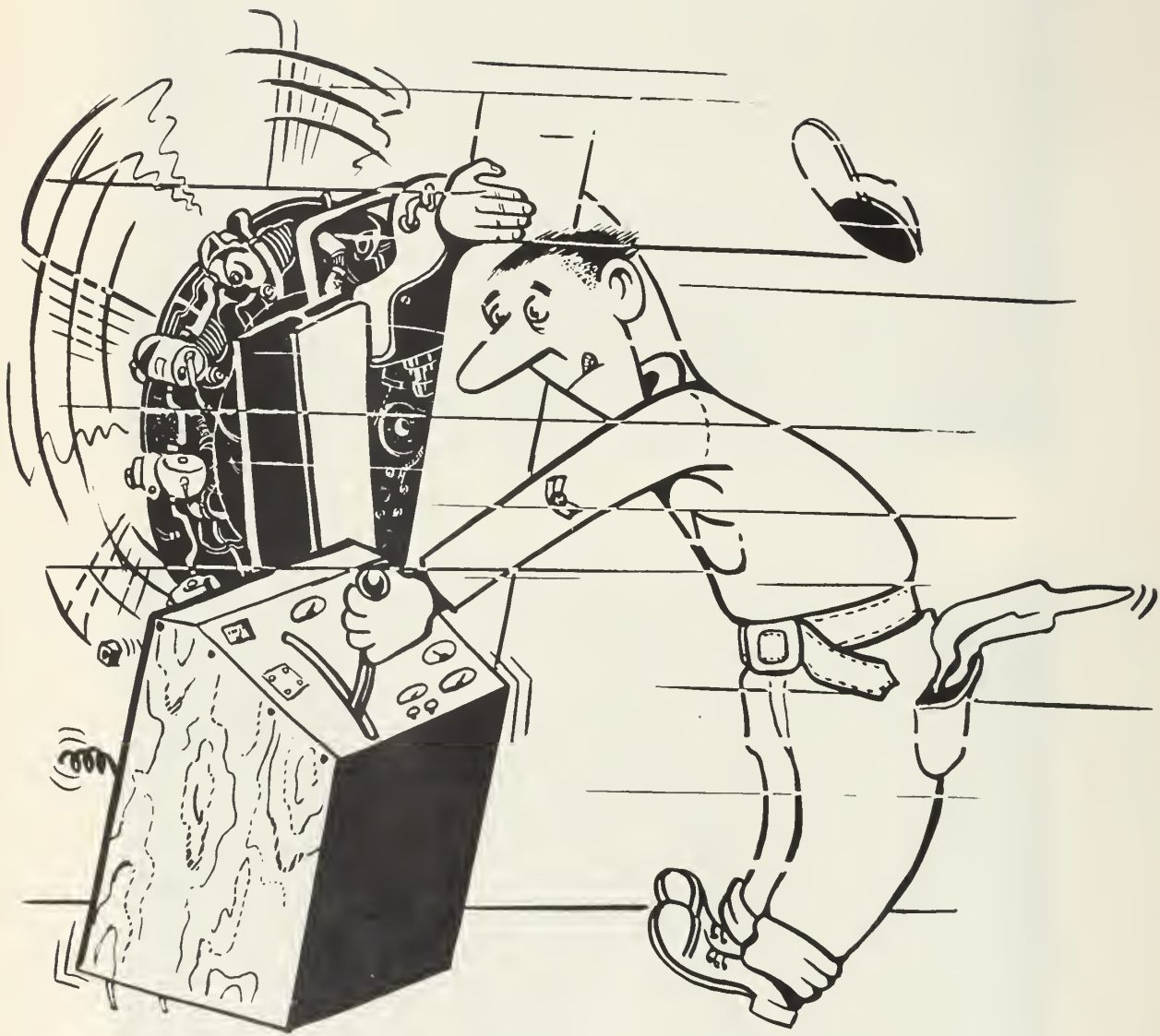




Learning a Circuit of the Flying and Landing Trainer



Getting Acquainted with the Mechanical Linkages of the Flying and Landing Trainer





# *power plant training*

Training in the Department of Power Plant is of two (2) types. The first type includes courses training towards the Senior Mechanic level in Aircraft Engine Maintenance and Operation and Rocket Propulsion.

The second type includes a number of special training courses for high level mechanics or technicians on specific new equipment.



AIRCRAFT RECIPROCATING ENGINE MECHANIC,  
COURSE NOS. 43152A AND 43152B

These specialized courses are designed to give advanced training in the maintenance, minor repair, and ground testing of reciprocating engines and their accessories.

Graduates of the engine courses are trained to inspect, service, adjust and make minor repairs on the engine and such accessories as carburetors, fuel and oil pumps, ignition units, fuel discharge nozzles, superchargers and related equipment.

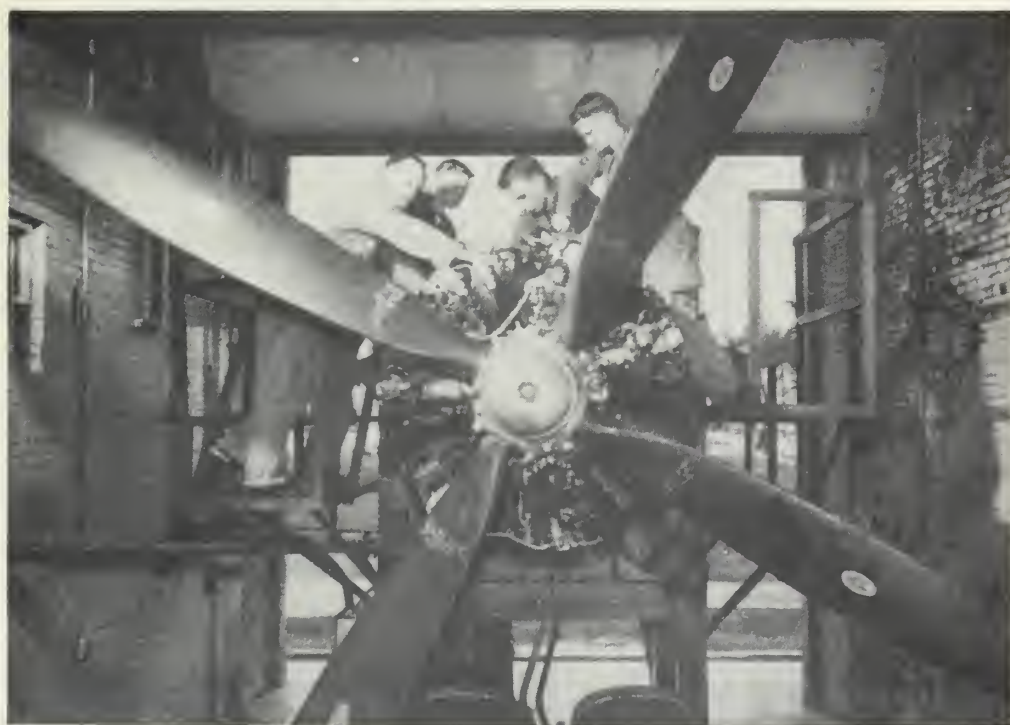
Special training courses (maintenance and operator) are given on the Bendix and Sperry analyzer for advanced students.



Learning the Operational Technique and Pattern  
Interpretation of the Engine Analyzer



Making Compression Check



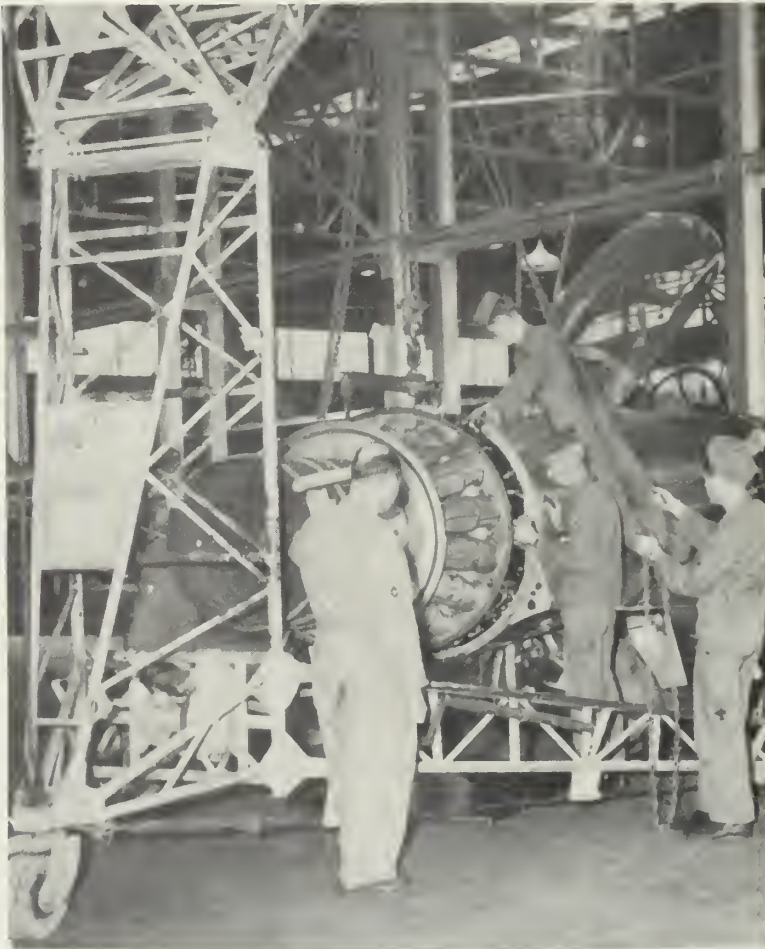
Performing Preflight Inspection of R-4360 Engine  
Prior to Operation



AIRCRAFT JET ENGINE MECHANIC,  
COURSE NOS. 43153-1, -2, -3, AND -4

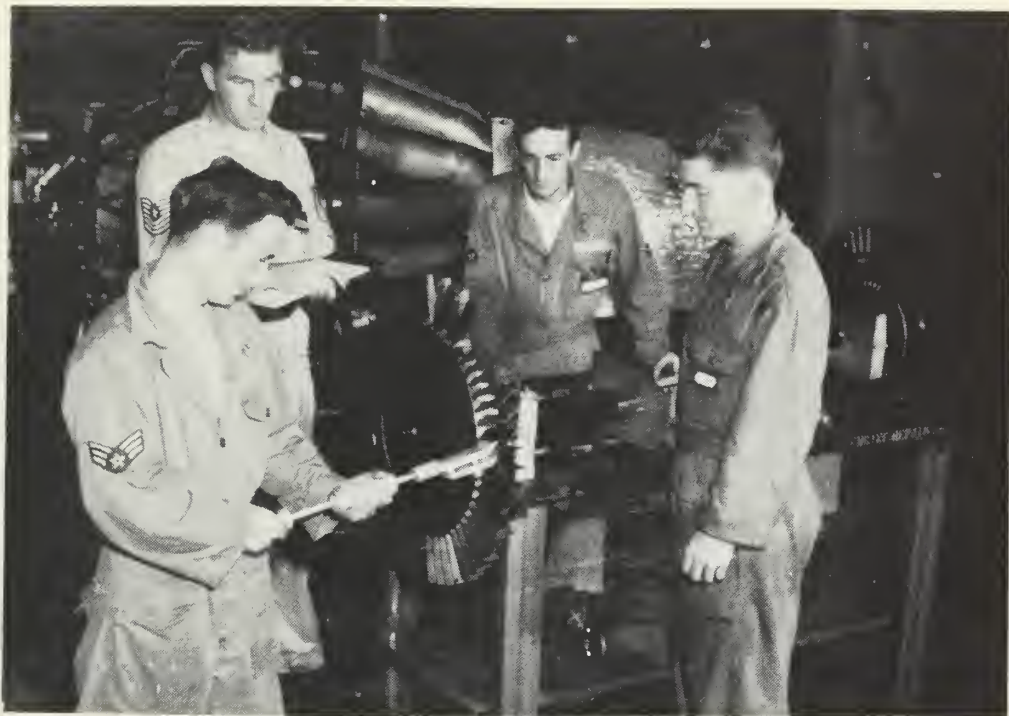
These courses are designed to give advanced training in the maintenance, minor repair and ground testing of jet engines and their accessories.

Graduates are trained to inspect, service, adjust and make minor repairs on jet engines and related equipment.



Engine Change on an F-94 Aircraft





Removing J-33 Turbine Wheel Buckets



Performing Preflight Inspection on J-48 Engine and  
Afterburner Prior to Operation

AIRCRAFT JET ENGINE MECHANIC, SPECIALIZED MATADOR  
COURSE NO. 43153GM

This course is designed to give airmen practical instruction in performing inspections, maintenance, and minor adjustments on the Matador missile.

ROCKET PROPULSION TECHNICIAN (INTERIM)  
COURSE NO. 44170

This course trains airmen in the inspection, maintenance, and minor adjustment and repair of rockets and rocket units, both liquid and solid. The course also gives training in the proper use, handling techniques, and storage of solid and liquid propellants.



Protective Clothing for the Rocket Technician



Checking Electrical System Prior to Operation



Charging a Liquid Rocket





**METALS TECHNICIAN**



# *crafts & trades training*

Instruction in the Department of Crafts and Trades Training covers the Metal Working (Code 53) and the Fabric, Leather and Rubber (Code 58) career fields. Both of these fields are within the Installation and Construction Engineering Occupational Area. Students are given extensive practical training in the following courses:

## Metal Working Career Field

Machinist  
Welder  
Metals Technician

## Fabric, Leather and Rubber Career Field

Parachute Rigger  
Fabric and Leather Worker  
Rubber Products Repairman

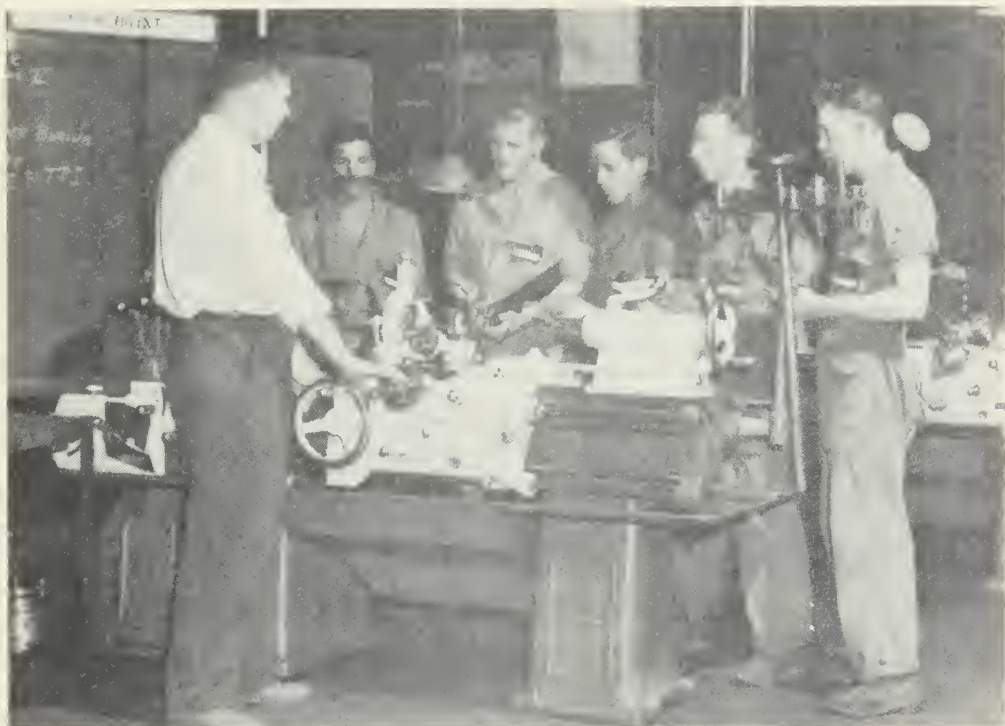


## MACHINIST, COURSE NO. 53150

The Machinist Course is designed to give training to airmen in the manufacture of metal parts and tools using machine shop equipment. The trainee is taught to read blueprints, select metal stock, lay out work, and machine the material to close tolerances using hand tools and power-driven machines such as lathes, milling machines, shapers, contour cutting machines, drill presses and precision grinders.



Learning the Technique of Cutting  
Helical Gear Teeth



Demonstrating the Method of Taper Boring on a Lathe



Learning to do Irregular Cutting on the Contour Machine



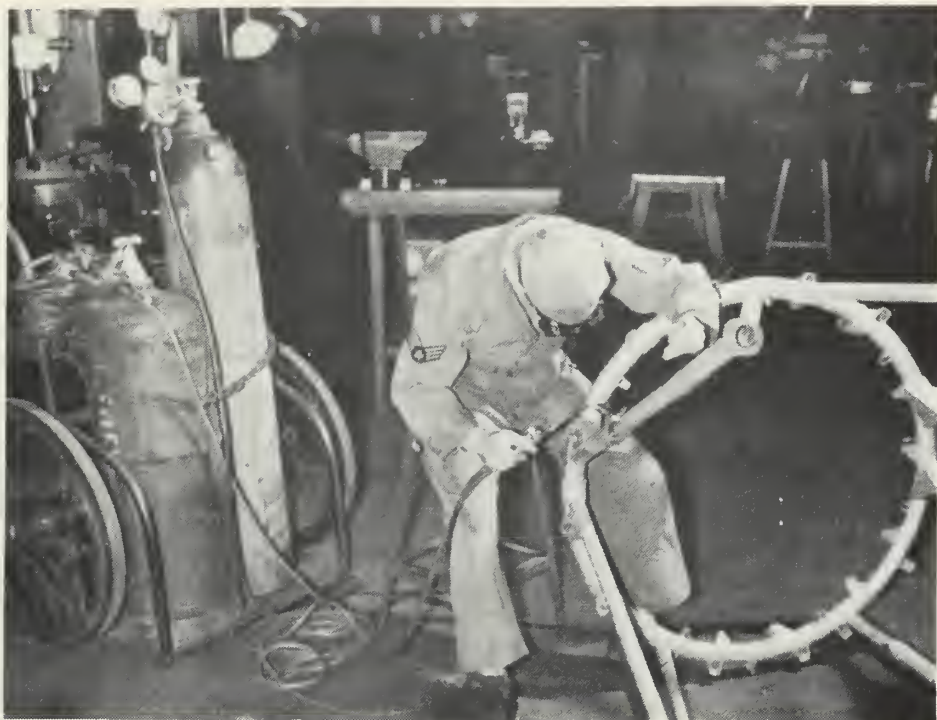
## WELDER, COURSE NO. 53250

In the Welder Course, airmen are given practical instruction in oxyacetylene, oxyhydrogen, metallic arc, gas shielded, and resistance welding. Related instruction includes shop blueprint reading, Air Force publications, forging, heat-treating, and general bench metal work.



Metallic Arc Welding of Ground Equipment Parts





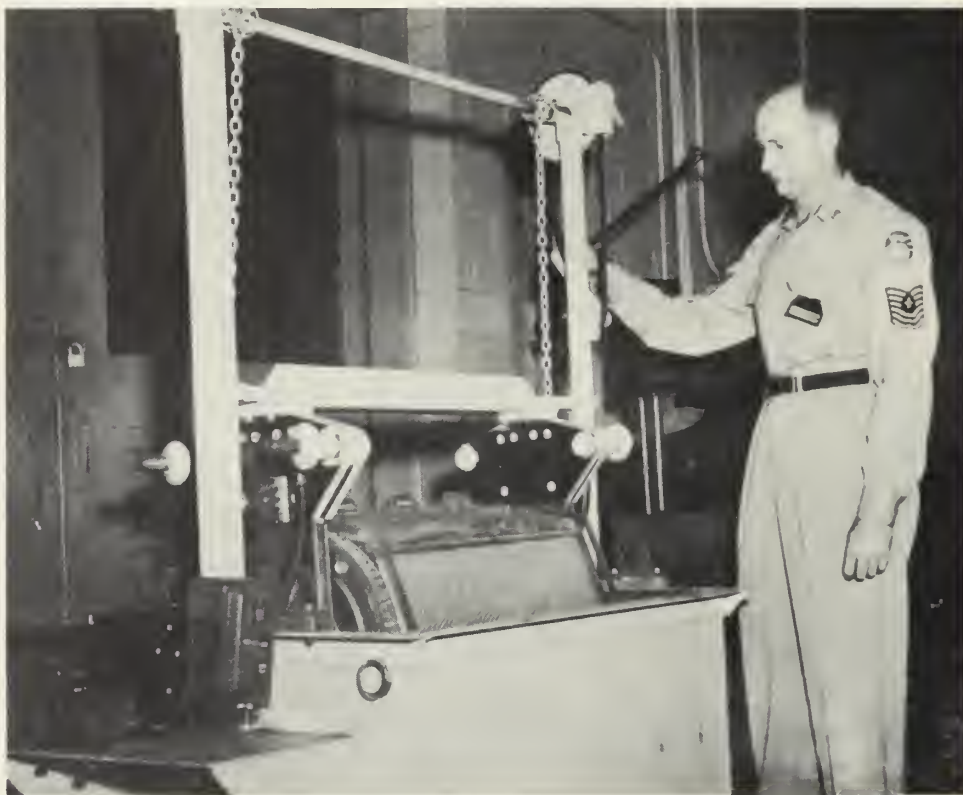
Practice in Engine Mount Welding Techniques



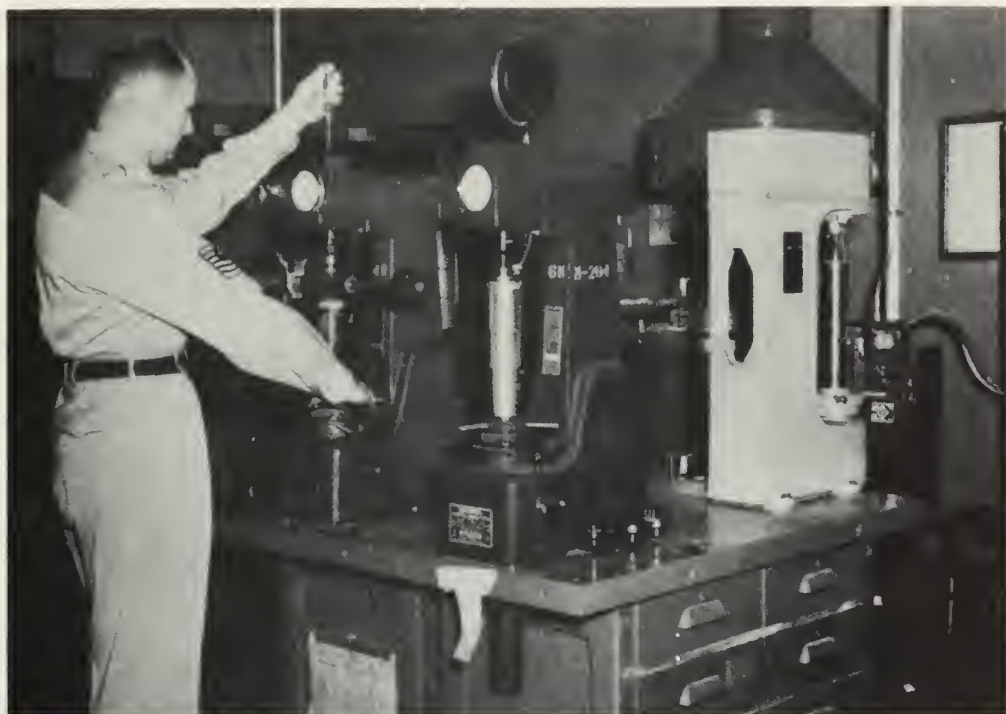
Gas Shielded Welding of Jet Aircraft Engine Parts

## METALS TECHNICIAN, COURSE NO. 53271

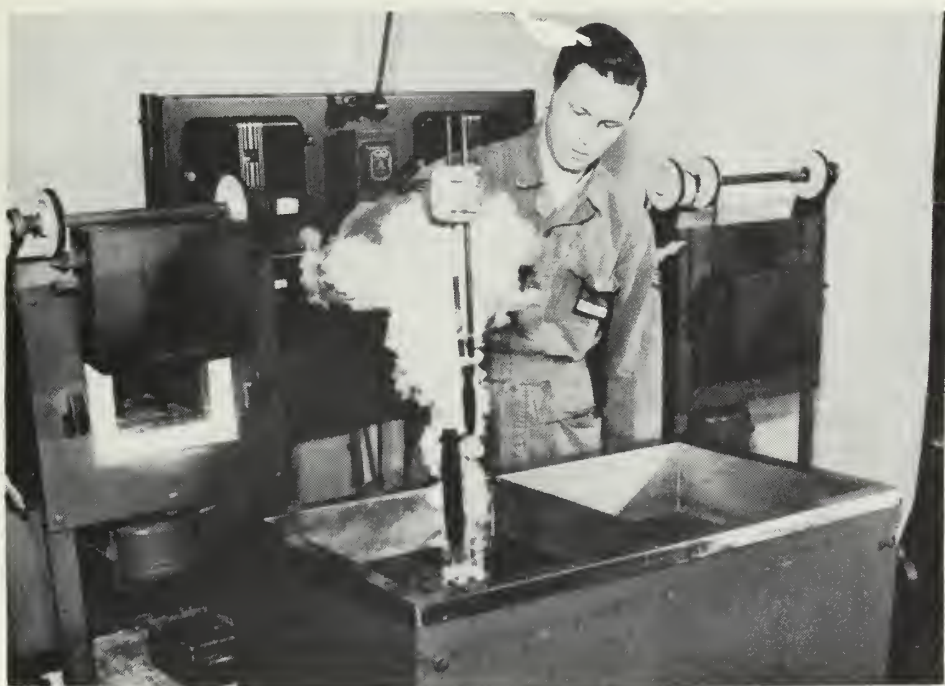
This course is designed to train experienced welders, AFSC 53250, in the technique and methods of metals processing. Trainees are instructed in identification and specifications of metals, heat treatment of ferrous and non-ferrous metals, hardening, tempering, physical testing and the inspection and plating of metals. Instruction is also given in the care and maintenance of heat treating furnaces, pyrometers and testing equipment.



Use of the Plating Barrel for Cadmium Plating



Maintenance of Hardness Testers



Quenching Alloy Steel Parts



## PARACHUTE RIGGER, COURSE NO. 58150

Airmen in this course are given practical instruction in the cleaning, storage, shipment, inspection, repair, packing, drop testing and fitting and adjustment of personal, deceleration, aerial delivery and cargo parachutes.



Drop Testing a Parachute





Stowing Suspension Lines in a Pack Tray



Performing a 10-Day Inspection on Parachutes Stored in Aircraft

FABRIC AND LEATHER WORKER  
COURSE NO. 58151

Airmen in this course are taught the repair and fabrication of fabric and leather articles. Instruction includes operation, maintenance and adjustment of standard and special duty sewing machines.



Rib Lacing a Control Surface



Repairing a Damaged Control Surface



Learning the Proper Use of the Sewing Machine



RUBBER PRODUCTS REPAIRMAN  
COURSE NO. 58250

This course is designed to train airmen to inspect and repair rubber items and rubberized equipment.



Fitting an Anti "G" Suit

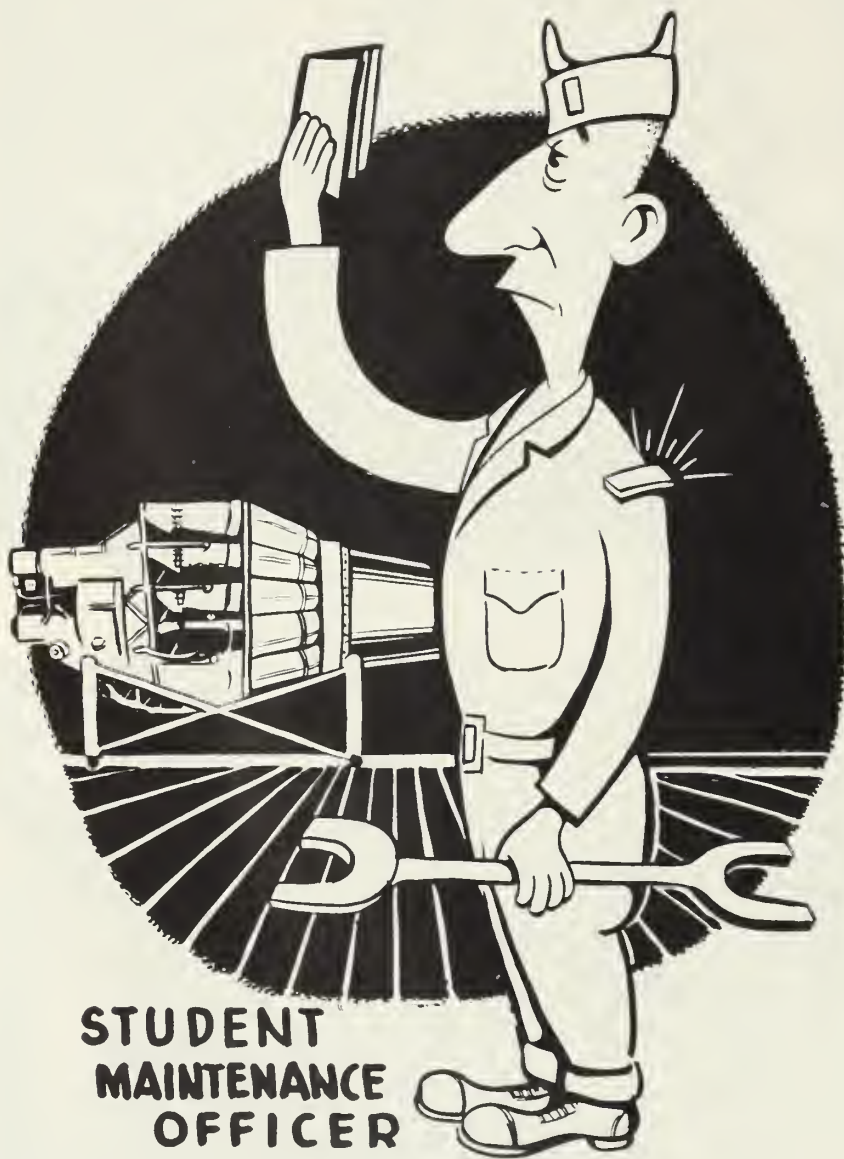




Repairing a Self-Sealing Fuel Cell



Installing a CO<sub>2</sub> Cylinder in a Life Raft



# *advanced aircraft maintenance training*

The Department of Advanced Aircraft Maintenance Training consists of five courses. For selected officer personnel, training is given in:

Aircraft Maintenance Officer.  
Maintenance Administration.  
Aircraft Performance Engineer (Preflight).

Selected airmen are given advanced or up-grade training in one of the following courses:

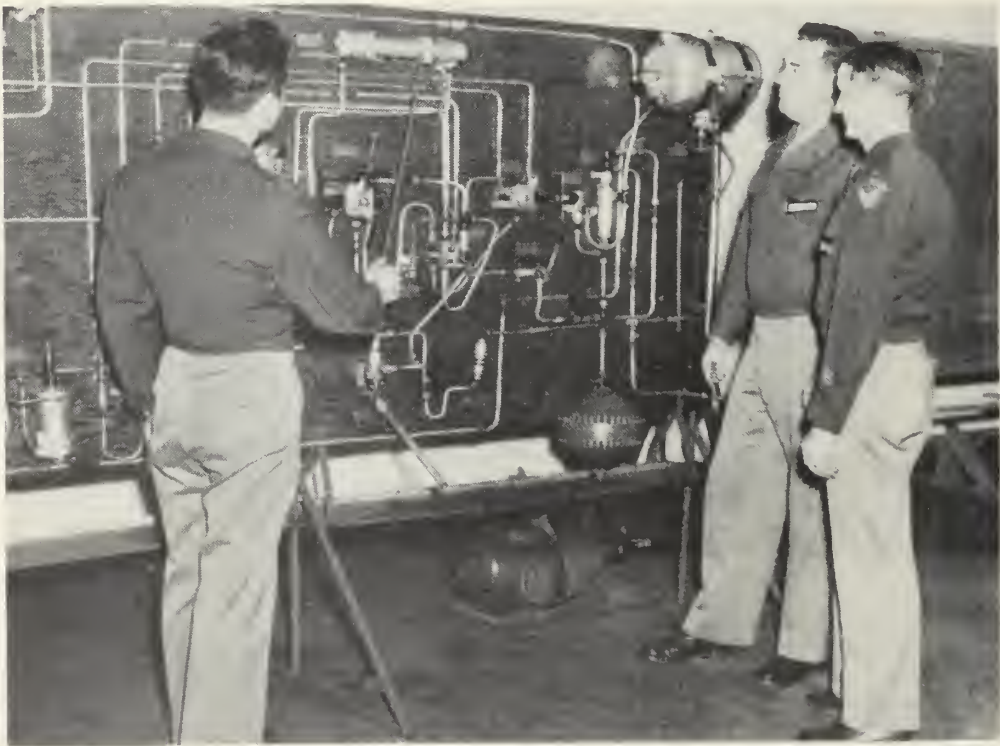
Flight Engineer Technician (Ground Phase).  
Mechanical Accessories and Equipment Repairman.





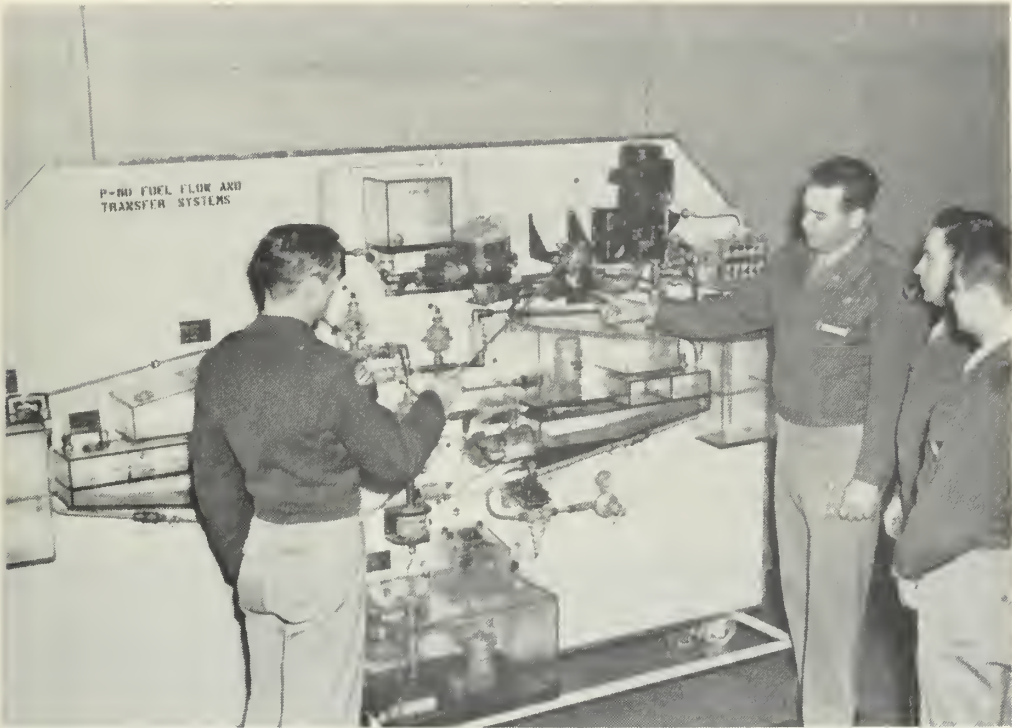
## AIRCRAFT MAINTENANCE OFFICER COURSE NO. 43440

This course is designed to train and qualify officers as aircraft maintenance officers for duty as supervisors of organizational and field maintenance activities in Air Force organizations. Instruction in this course includes such subjects as Administration and Management, Air Force Shop Functions, Airplane Structures, Miscellaneous Systems and Ground Equipment, Direct and Alternating Current Electrical Systems and Instruments, Electronic Systems and Equipment, Airplane Power Plants, Operation and Cruise Control, Engine Change and Inspections, and Weight and Balance Control.

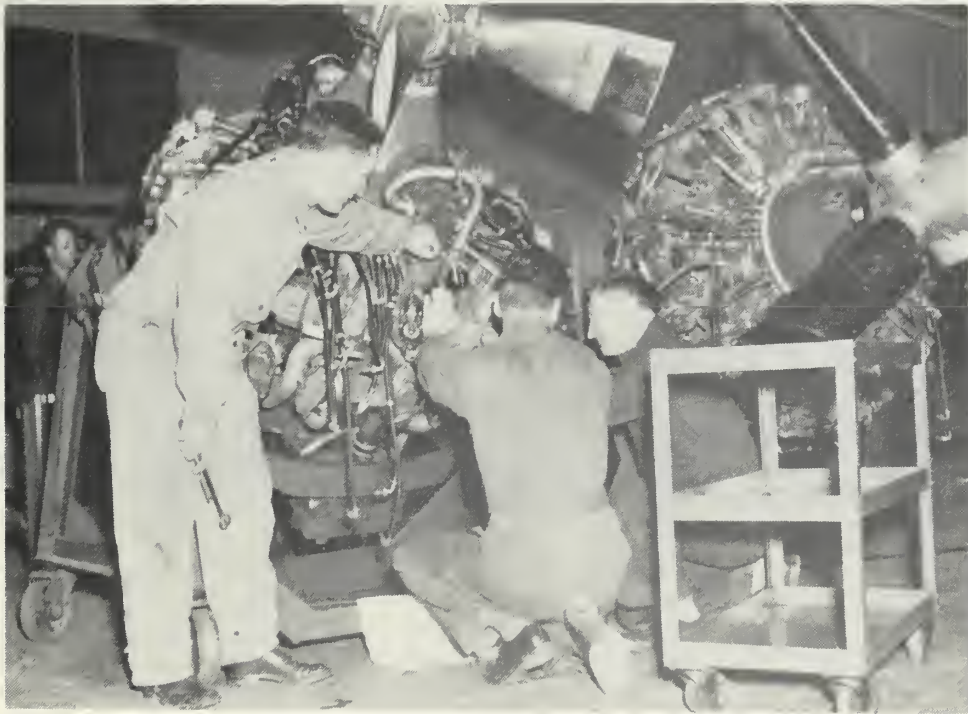


Tracing the Flow of Hydraulic Fluid in a Typical  
Hydraulic System





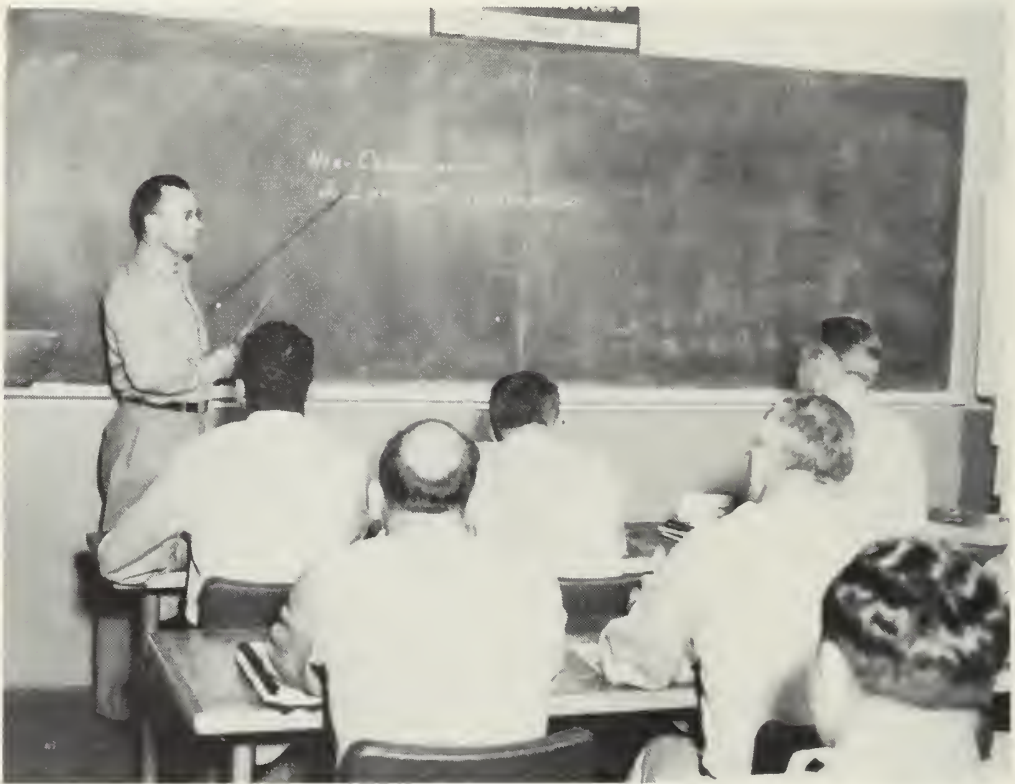
Demonstration of the Operation of the F-80 Fuel System



Completing Valve Check After Overhaul

MAINTENANCE ADMINISTRATION  
COURSE NO. 43441

This course is designed to give advanced training in management subjects to officers who are technically qualified and experienced Aircraft Maintenance Officers.



Reviewing Management Problems

AIRCRAFT PERFORMANCE ENGINEER (PREFLIGHT)  
COURSE NO. 43240

This course is designed to acquaint Aircraft Performance Engineers with the latest techniques of cruise control and operation of heavy bombardment aircraft and to familiarize them with procedures and techniques of performance plotting. Emphasis is placed on problems inherent in heavy bombardment type aircraft in flight planning and operation.

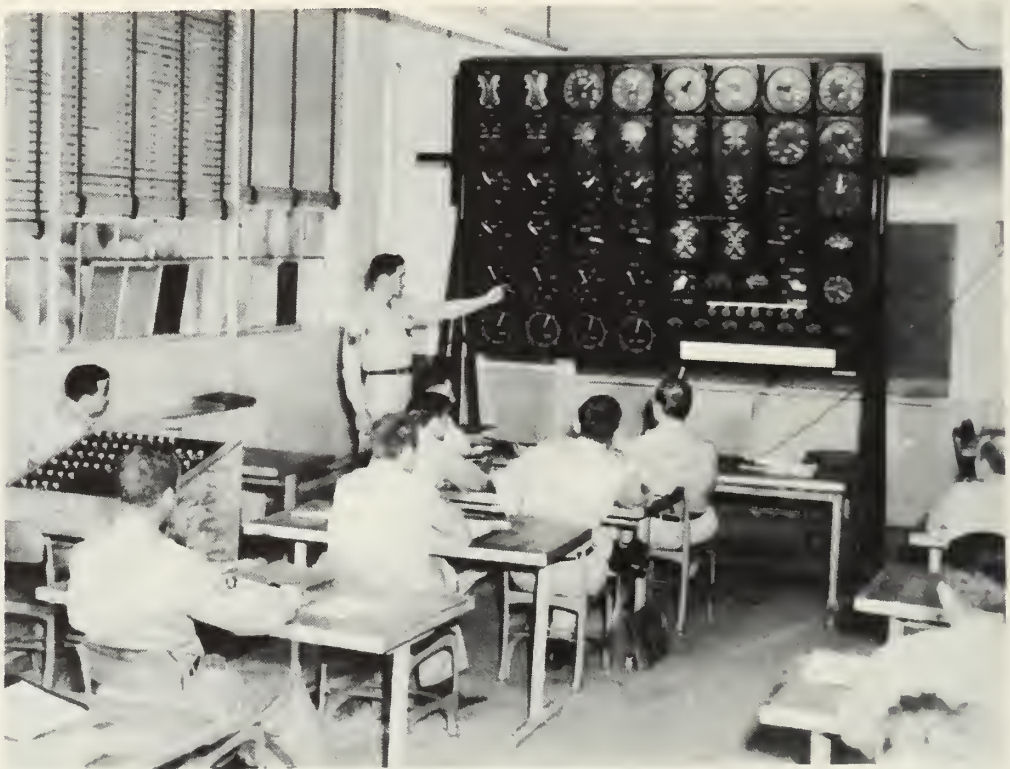


Learning to Operate the B-36 Flight Engineer's Panel



FLIGHT ENGINEER TECHNICIAN (GROUND PHASE)  
COURSE NO. 43271

This course is designed to give training to selected airmen with experience as airplane mechanics in operation and inspection of medium bombardment type airplanes, and in the control of the performance of such airplanes during flight.

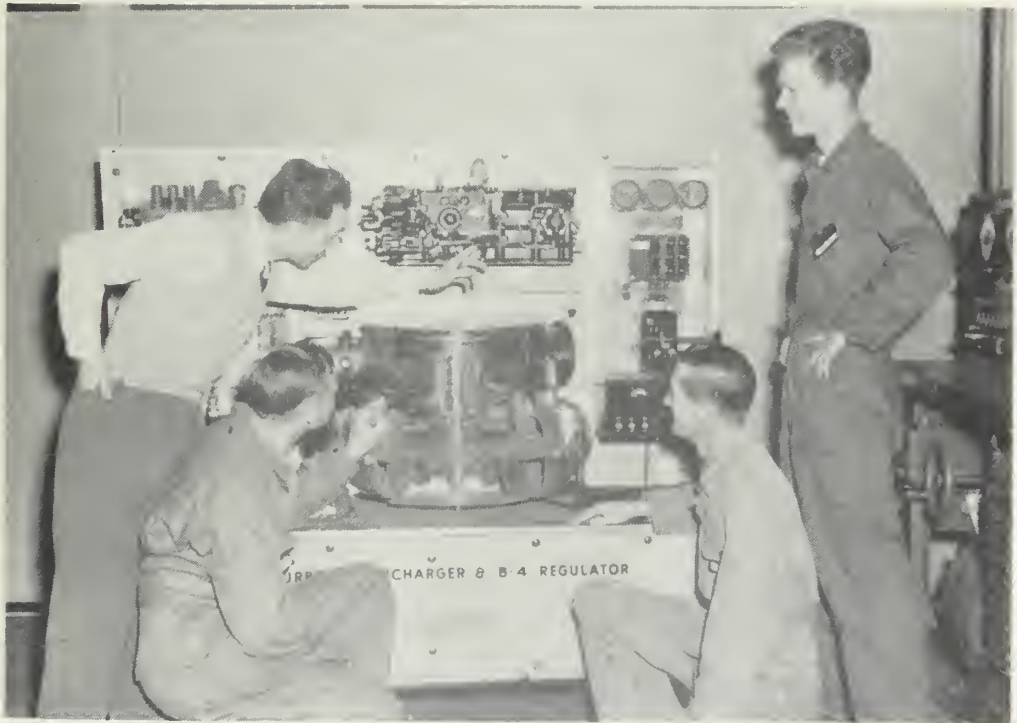


Teaching B-50 Cruise Control Problems





Demonstrating the Constructional Features of an R-4360 Engine



Operation and Constructional Features of the Turbosupercharger

## MECHANICAL ACCESSORIES AND EQUIPMENT REPAIRMAN COURSE NO. 42450

In this course, selected airmen (airplane and engine mechanics or higher) are given training in organizational and field maintenance of such accessories and equipment as:

Airplane Air Conditioning Systems

Oxygen Systems

Heating, Ventilating and Cabin Pressurizing Systems

Anti-Icing and Defogging Systems

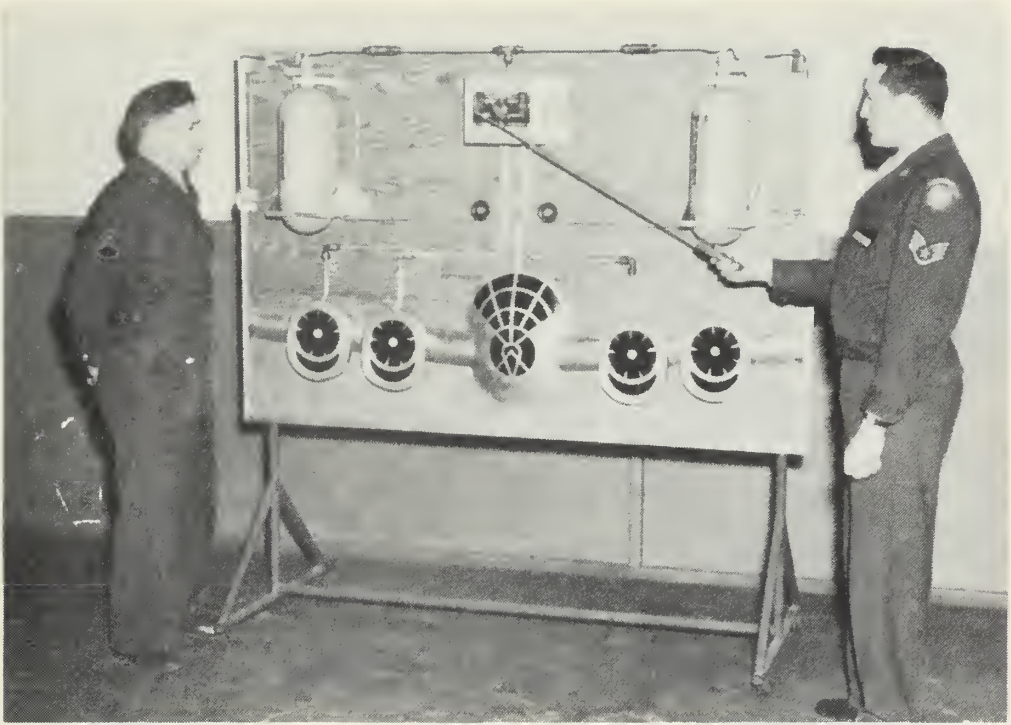
Fire Detecting and Fire Extinguishing Systems

Ground Heating, Ventilating and Cooling Equipment

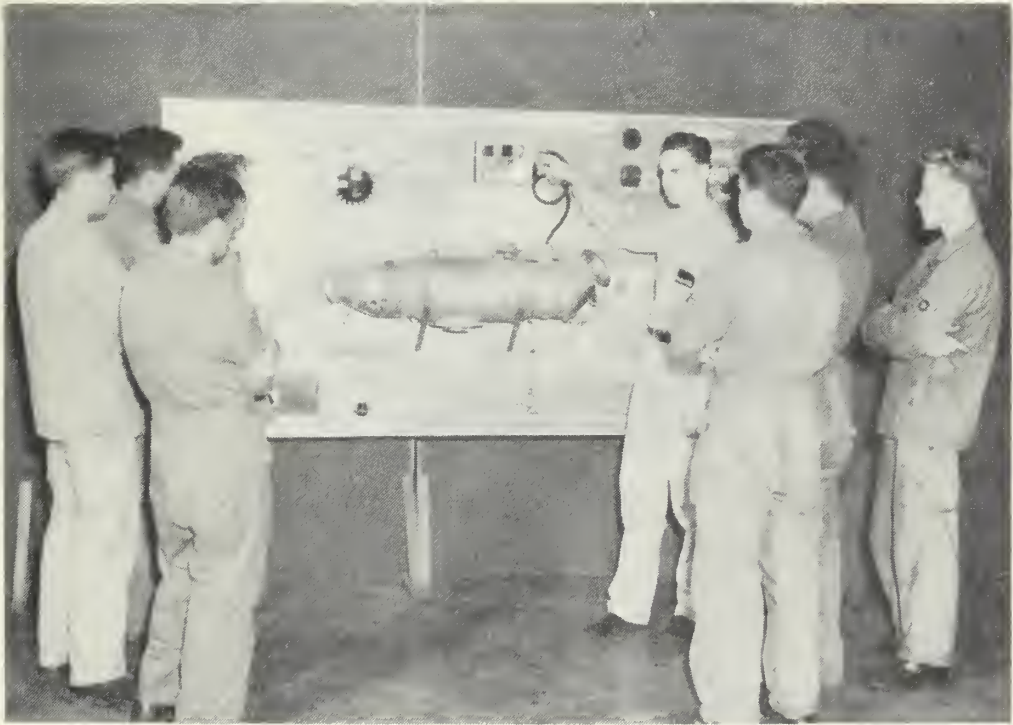
Cabin Pressure Test Equipment



Operating the Regulator of the Oxygen System



Demonstrating the Operation of the Engine  
Fire Extinguishing System



Learning the Operational Features of the B-50  
Cabin Heater Electrical System







# *weather training*

The mission of the Department of Weather Training is to train officers and airmen for duty in all branches of the weather field. The courses conducted are designed to give basic and up-grade training in the observing, analysis, and forecasting of weather phenomena; and in the operation and maintenance of electronic and non-electronic equipment used in the observing, recording, and transmission of weather data.

The High Altitude Forecaster Course is offered to officer personnel.

Courses offered to airmen include:

Basic Weather Service (Observer Channel)  
Intermediate Meteorological  
Climatological  
High Altitude Forecaster  
Advanced Meteorological  
Basic Weather Service (Equipment Channel)  
Intermediate Weather Equipment.  
Advanced Weather Equipment.

An explanation of training within the courses of this department follows:



BASIC WEATHER SERVICE (OBSERVER CHANNEL)  
COURSE NO. 25000B

This basic weather course is designed to train specially selected airmen in the theory and practice of weather observing as employed by the United States Air Force. Graduates are trained in the care and use of standard weather instruments and equipment; observing and recording the instrumental and non-instrumental data; encoding and decoding weather data; and operation and care of standard communication equipment.



Weather Observer Students in a Training Station



Weather Instruments Classroom

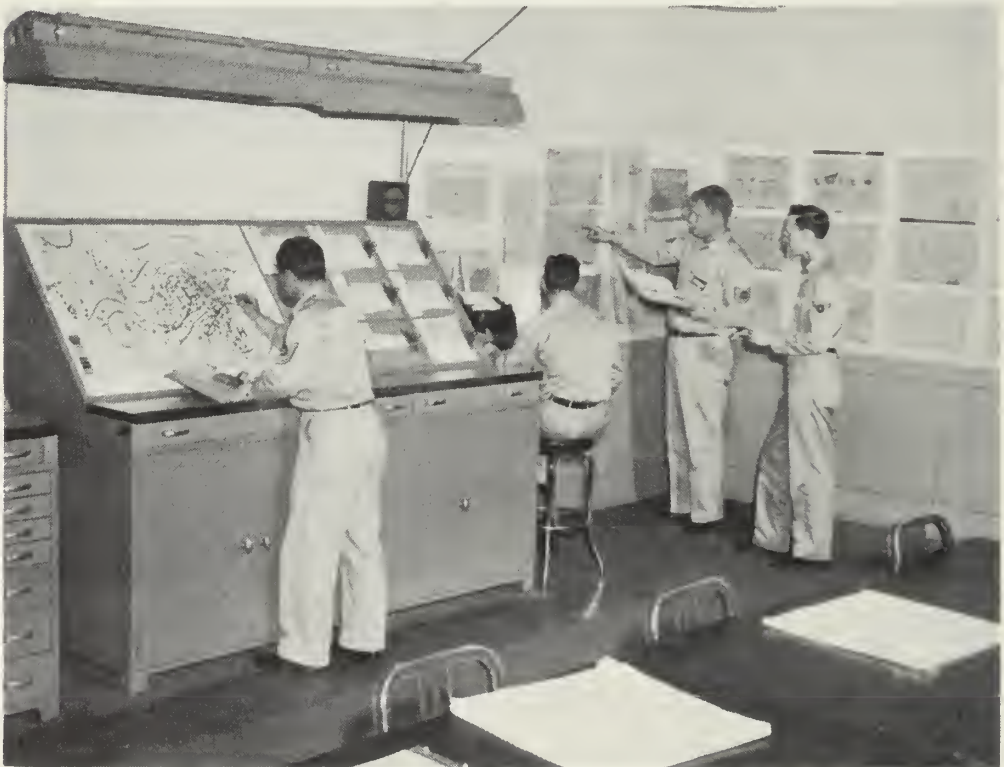


Taking Surface Weather Observations



## INTERMEDIATE METEOROLOGICAL COURSE NO. 25270

This weather course is designed to train senior weather service airmen in the analysis of weather maps and charts, preparation of detailed weather information for forecasts and briefings, and routine operation of weather stations. Graduates are trained to prepare, analyze, and interpret surface, upper air, and associated meteorological charts necessary for the local, route, and area forecasts.

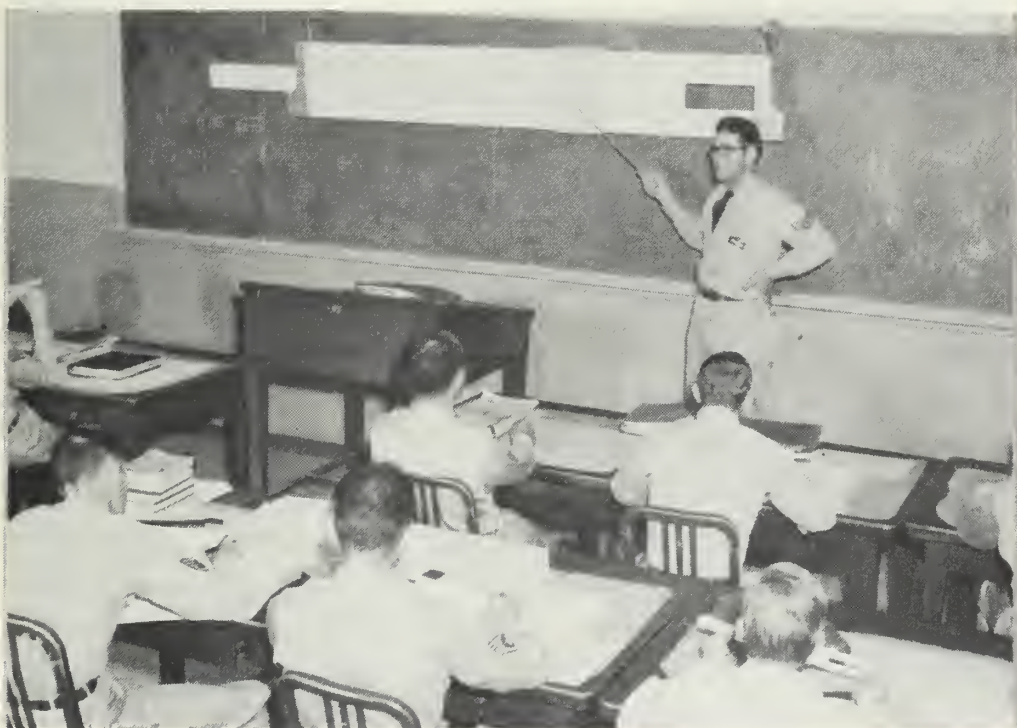


Weather Station Training (School Training Station)





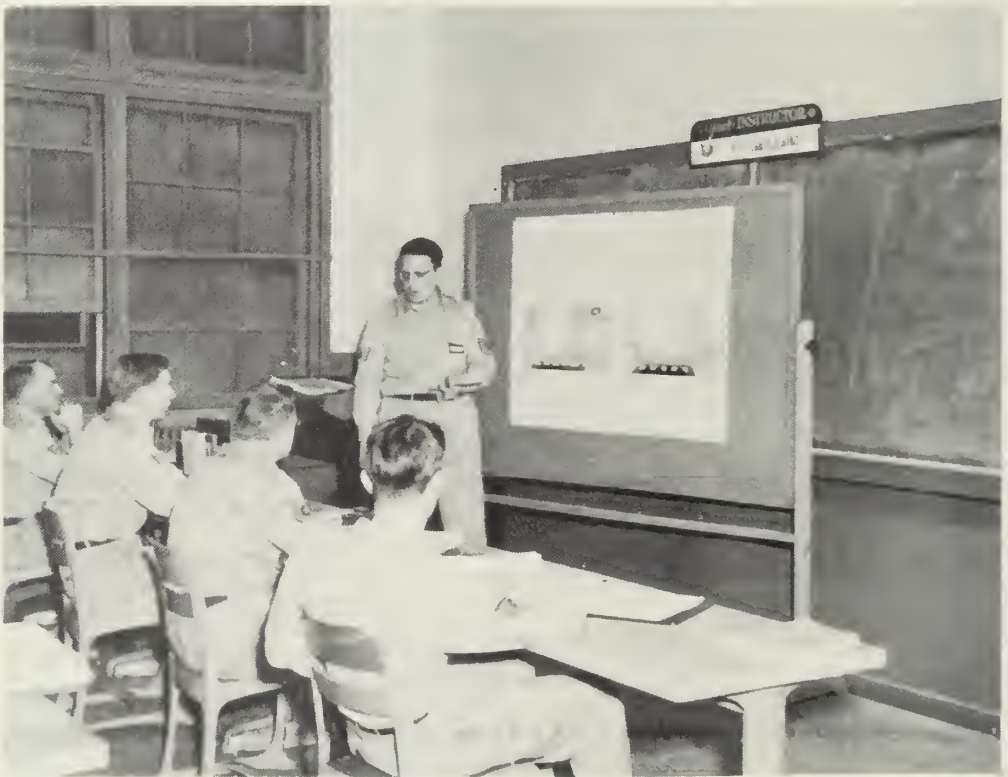
Instruction in Air Mass Analysis



Instruction in Slide Rule Operation

## CLIMATOLOGICAL COURSE NO. 25271

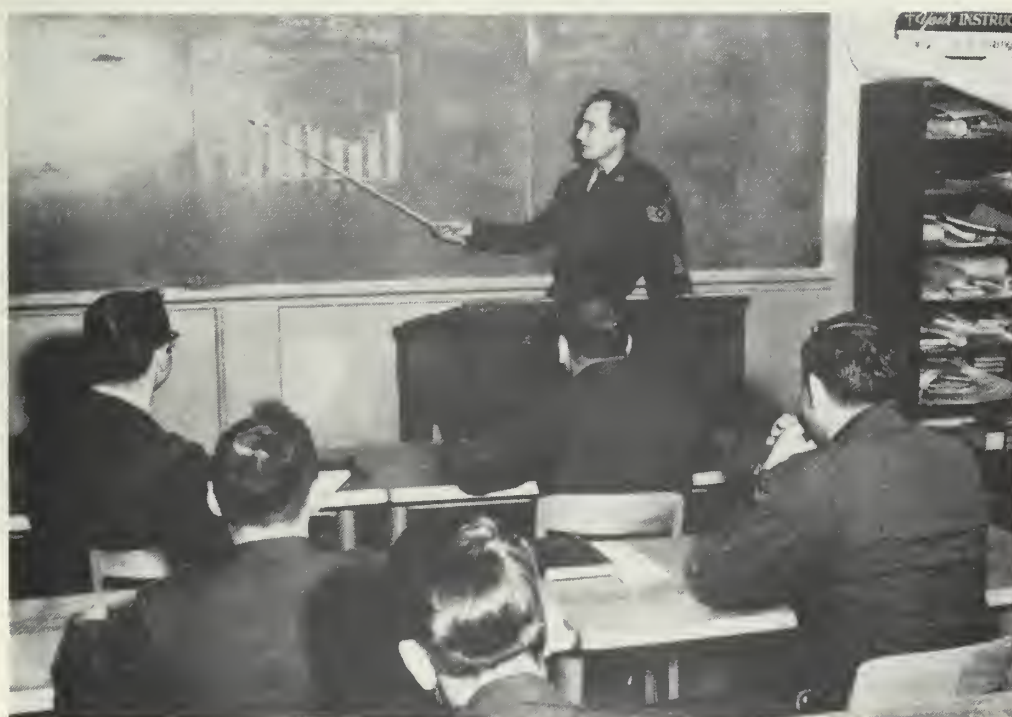
This course is designed to give additional specialized climatological training to selected meteorological technicians and weather forecasters. Graduates are trained in the methods of collecting, analyzing, and interpreting historical weather records for use in the solution of practical military problems outside the scope of normal forecasting techniques.



Classroom Study of Climatological Data



Tabulating, Summarizing and Analyzing Climatic Data

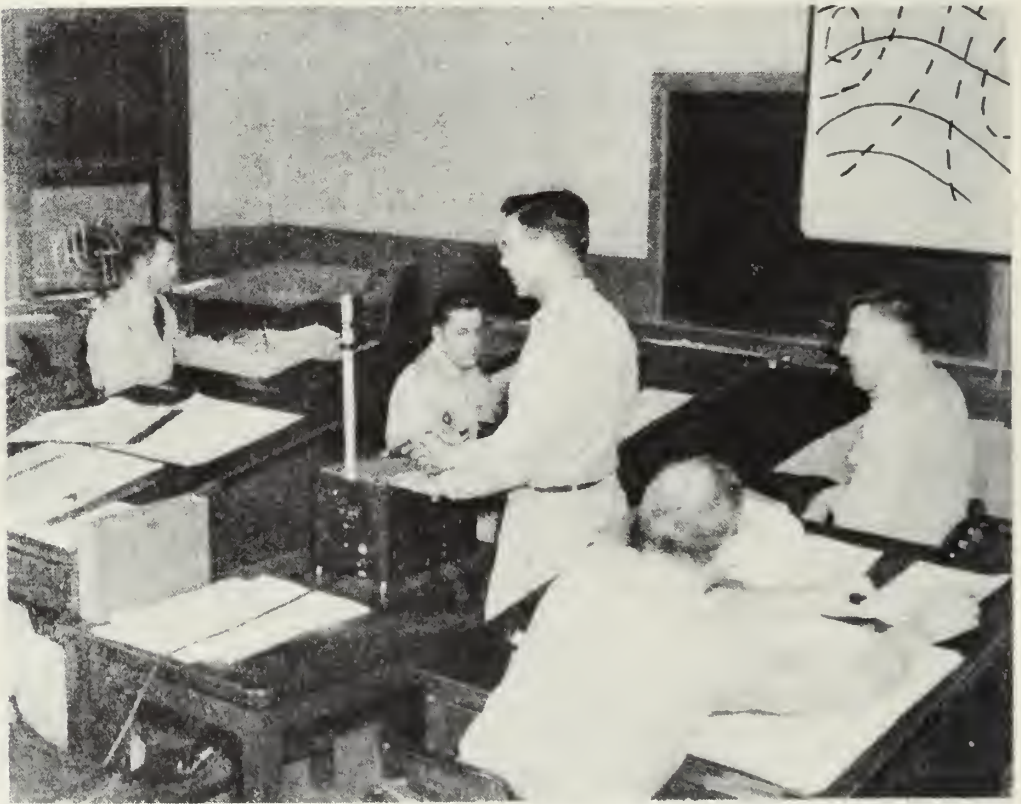


Student Reporting Findings in the Solution of a Problem  
in Applied Climatology



## HIGH ALTITUDE FORECASTER COURSE NO. 82197

Training is offered in this course to selected officers and airmen who are qualified Weather Officers and Forecasters. This is a special course designed to qualify graduates for duties involving forecasting for high altitude flights. Graduates are trained to analyze and forecast weather phenomena including the jet stream in the vicinity of the tropopause.



Instruction in Differential Analysis





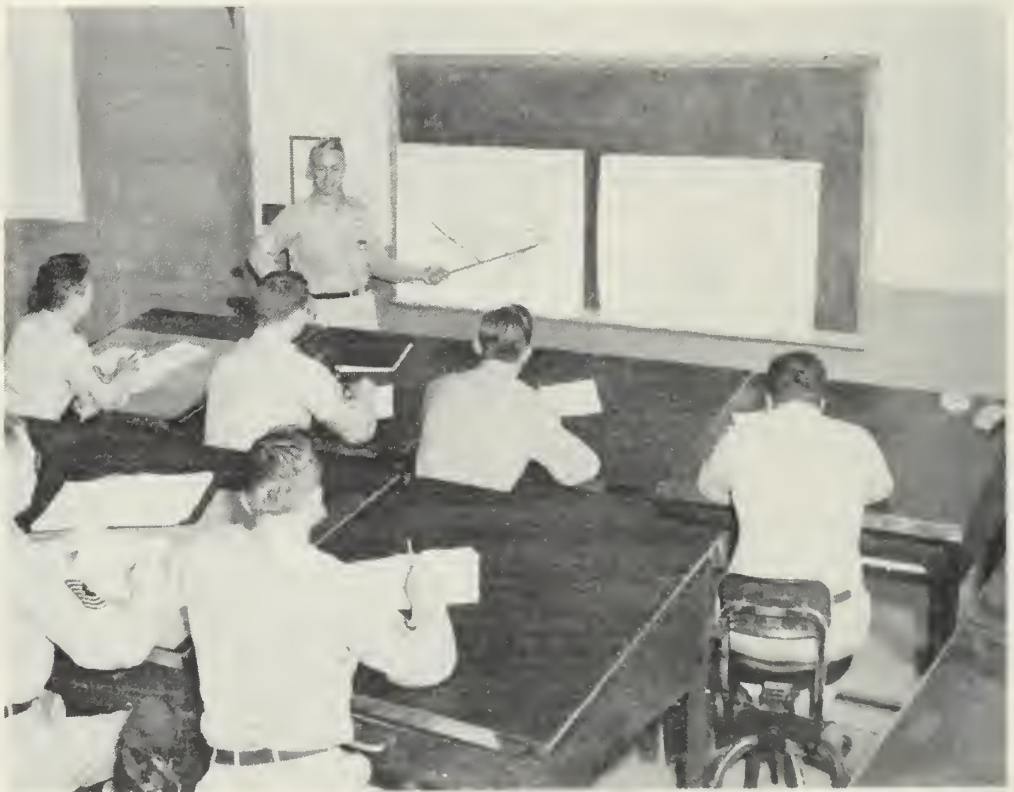
Classroom Instruction on Upper Air Charts



Checking the Contour Lines on Upper Air Charts

ADVANCED METEOROLOGICAL  
COURSE NO. 25200

This course is designed to give advanced meteorological training to weather forecasters and technicians. Graduates are trained to prepare and issue all types of weather forecasts and briefings, and to direct operation of weather stations.



Study of Temperature Distribution in the Stratosphere



Instruction in Oceanography



Studies of Motion in the Atmosphere



BASIC WEATHER SERVICE (EQUIPMENT CHANNEL)  
COURSE NO. 25000A

This basic weather course is designed to train specially selected airmen in the basic theory and practice of weather observing and weather equipment operation as employed in the United States Air Force. Graduates are trained to operate radiosonde, rawinsonde, and other related electronic weather equipment to determine wind, temperature, and moisture conditions at various heights in the atmosphere.



Releasing Rawinsonde Flight Equipment



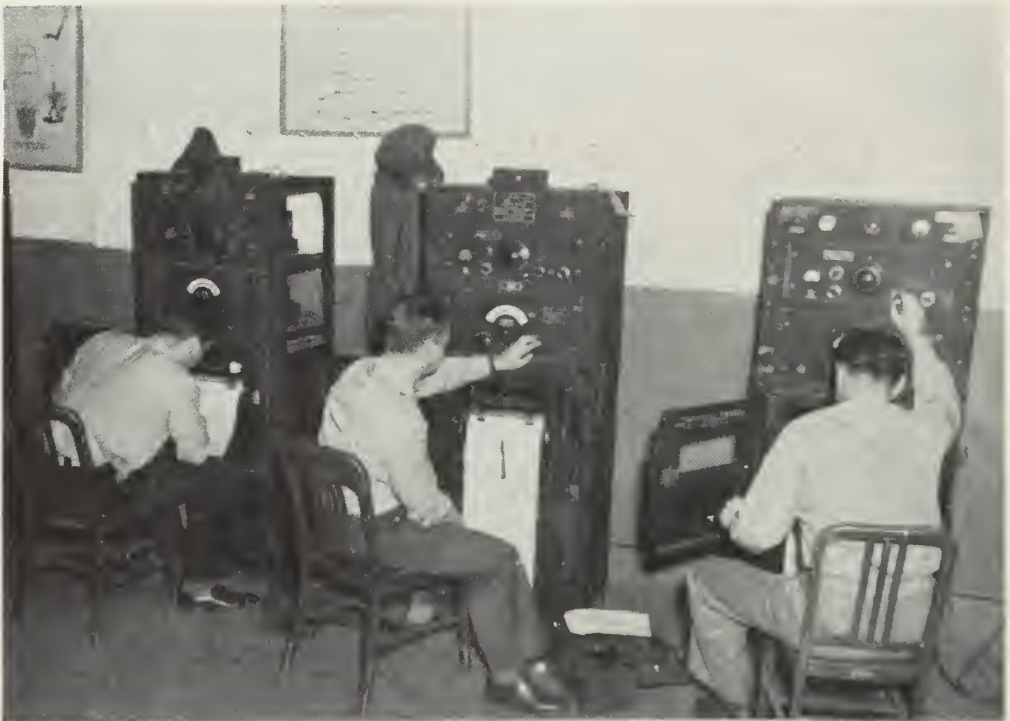
Training on Maintenance of Ceilometer Equipment  
(Cloud Height Measuring Equipment)



Evaluating Data Received by the Radiosonde Receptor  
AN/FMQ-1

## INTERMEDIATE WEATHER EQUIPMENT COURSE NO. 25170

The first part of the training in this course (Radio Fundamentals) is conducted at Keesler AFB, Mississippi. The second part of the training (Chanute AFB phase) is based upon the application of the radio fundamentals knowledge to specialized rawinsonde equipment. Graduates are trained to install, inspect, and maintain all electronic weather equipment.



Trouble Shooting and Calibrating the Radiosonde Receptor





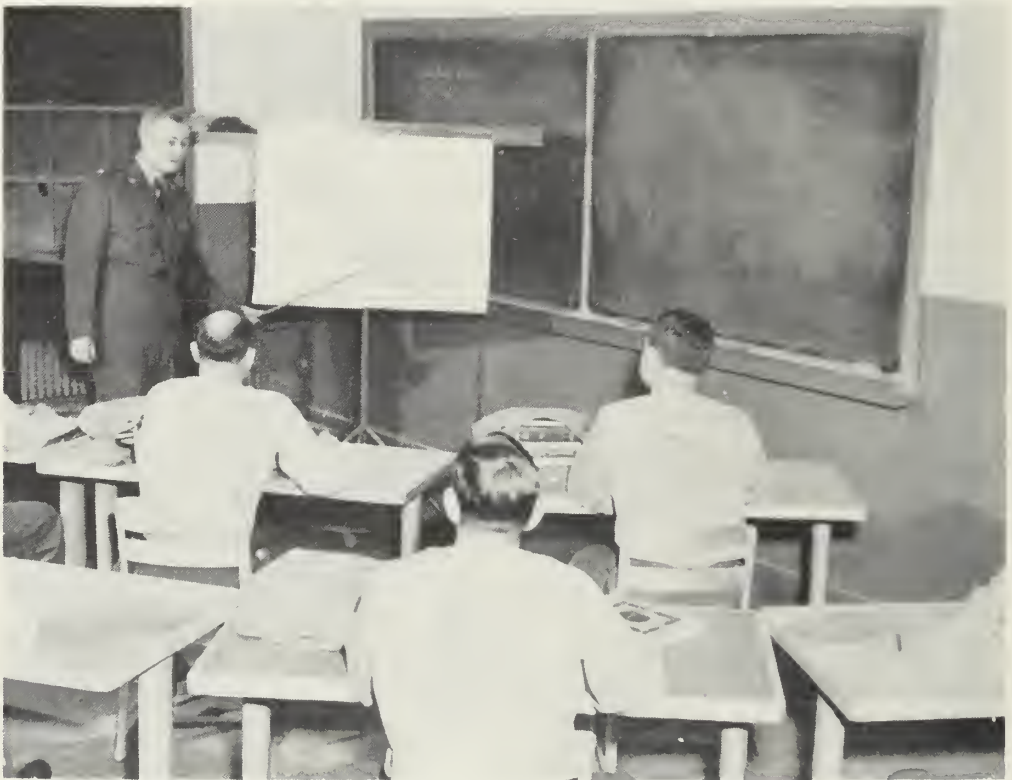
Maintenance of Rawin Set (Weather Balloon Tracking Equipment)



Installation of the Rawin Set

## ADVANCED WEATHER EQUIPMENT COURSE NO. 25100

This course is designed to broaden the knowledge of specially selected weather equipment supervisors and weather equipment technicians in the theoretical concepts and their practical applications in the weather equipment field. Graduates are trained in the planning, procurement, installation, and operation of meteorological equipment, including its capabilities and limitations and the modification possibilities that may be employed under abnormal conditions.



Instruction in the Development of New Weather Equipment  
by a Guest Lecturer



Discussion of Electronic Circuits



Student Conducted Seminar on Automatic Balloon  
Tracking Equipment





INSTRUCTOR

# *instructor training*

This department conducts the Technical Instructor course, the function of which is to train airmen, officers, and civilians who are qualified in a technical specialty in the methods and techniques of teaching that specialty. In addition to this officially recognized course, a supervisors course and a field service are provided by this department.



TECHNICAL INSTRUCTOR  
COURSE NO. 75100

Specific subjects of training within this course are: oral expression, study habits, effective learning, teaching methods and techniques, classroom and student management, instructional aids, lesson planning, grading and testing, and practice teaching.

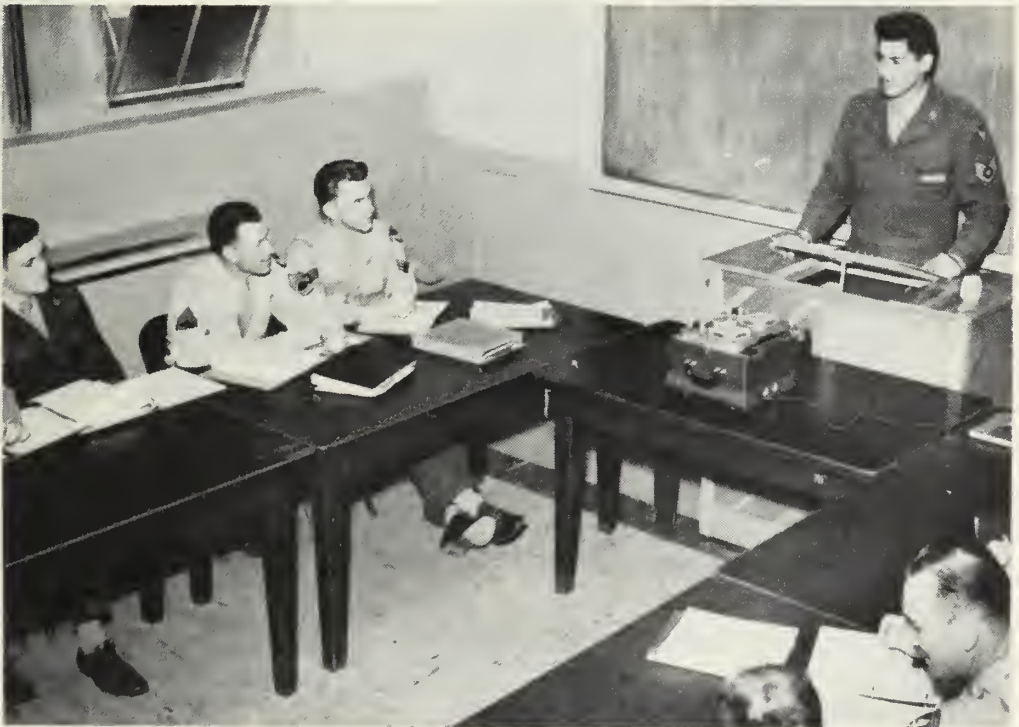


Instruction in the Use of Visual Aids in Teaching





Giving a Practice Lecture for Student Analysis and Discussion



Use of the Tape Recorder in Speech Training

## THE USE OF EQUIPMENT IN TRAINING

Throughout the foregoing section (Chanute Air Force Base Technical Courses) it may be noted that the illustrations depicting instructional situations in the various courses show a wide variety of equipment used in many different ways. Some of the more frequent uses to which aircraft equipment is put are as:

- Cut-aways to show internal construction.
- Items for disassembly and assembly purposes.
- Equipment for use in bench testing.
- Items for removal and installation practice.
- Assemblies of equipment and parts to comprise working replicas (trainers) of airplane systems.

As a further explanation of the uses to which trainers are put, a general discussion of the following is included:

The Need for Trainers: In most instances the development of a trainer is brought about by the need of the classroom instructor for an aid in the teaching of some airplane system.

Types of Trainers: Trainers are prepared to show the equipment employed in a particular airplane system, to include common troubles for diagnosis and correction, and as complete operating replicas.

Common Trainer Systems: When new types of aircraft are manufactured, trainers are usually prepared to give technical instruction on:

- Hydraulic systems (may be one or several systems).
- Electrical systems.
- Instrument systems.
- Fuel systems.
- Oxygen systems (when different from ordinary types).
- Fire extinguishing systems.
- Assist take-off systems.
- Heating, ventilating and pressurizing systems.
- New and different features such as:
  - Auto dive brakes.
  - Pilot ejection seat.
  - Slots.
- Engine cut-aways and exploded models.

Number of Trainers Employed: There are approximately 1550 trainers in use throughout the school. 1400 were manufactured in the Training Aids Section of this school and 150 are standard trainers. The Training Aids Section is currently preparing new trainers at the rate of 40 per month.



**GRADUATION**























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